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ABSTRACT

In order to evaluate the potential effects of U.S. conversion to SI (Systems International) units on U.S. foreign trade, 188 export product classes and 155 import product classes were selected from 1,166 Standard Industrial Classification (SIC) product classes and questionnaires were mailed to a total of 510 firms, utilizing separate forms for exporters and importers. Drawn from a computerized national index of industries, the number of forms selected for each product class was based on the total trade volume of the product class, which generally fell within one of these four groupings: (1) nonelectrical machinery, (2) electrical equipment and supplies, (3) transportation equipment, and (4) instruments and related products. American technological superiority appeared to be our chief advantage in international trade. Conversion to SI units would favorably influence U.S. exports rather than imports into the United States. A detailed summary of findings precedes extensive descriptions of the possible effects of metrication on U.S. international trade, specifically focusing upon seven selected American industries. Numerous tables present the data. Related documents are available as VT 018 023-018 028 and VT 018 036-018 037 in this issue, and VT 017 558 and VT 017 564 in March 1973 RIE. (AG)

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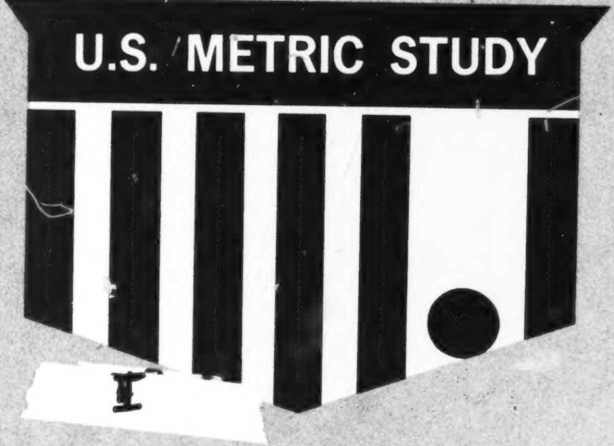
INTERNATIONAL TRADE



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U.S. METRIC STUDY
INTERIM REPORT
INTERNATIONAL TRADE

Eighth in a series of reports prepared
for the Congress

U.S. METRIC STUDY
Daniel V. De Simone, Director

National Bureau of Standards
Special Publication 345–8

UNITED STATES DEPARTMENT OF COMMERCE
MAURICE H. STANS, *Secretary*
NATIONAL BUREAU OF STANDARDS
LEWIS M. BRANSCOMB, *Director*

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LETTER OF TRANSMITTAL

THE HONORABLE PRESIDENT OF THE SENATE
THE HONORABLE SPEAKER OF THE HOUSE OF
REPRESENTATIVES

SIRS:

I have the honor to present the eighth in the series of interim reports stemming from the U.S. Metric Study, prepared by the National Bureau of Standards.

This Study was authorized by Public Law 90-472 to reduce the many uncertainties concerning the metric issue and to provide a better basis upon which the Congress may evaluate and resolve it.

I shall make a final report to the Congress on this Study in August 1971. In the meantime, the data and opinions contained in this interim report are being evaluated by the Study team at the National Bureau of Standards. My final report to you will reflect this evaluation.

Respectfully submitted,

Maurice H. Stans

Secretary of Commerce

Enclosure

LETTER OF TRANSMITTAL

Honorable Maurice H. Stans
Secretary of Commerce

Dear Mr. Secretary:

I have the honor to transmit to you another interim report of the U.S. Metric Study, which is being conducted at the National Bureau of Standards at your request and in accordance with the Metric Study Act of 1968.

The Study is exploring the subjects assigned to it with great care. We have tried to reach every relevant sector of the society to elicit their views on the metric issue and their estimates of the costs and benefits called for in the Metric Study Act. Moreover, all of these sectors were given an opportunity to testify in the extensive series of Metric Study Conferences that were held last year.

On the basis of all that we have been able to learn from these conferences, as well as the numerous surveys and investigations, a final report will be made to you before August 1971 for your evaluation and decision as to any recommendations that you may wish to make to the Congress.

The attached interim report includes data and other opinions that are still being evaluated by us to determine their relationship and significance to all of the other information that has been elicited by the Study. All of these evaluations will be reflected in the final report.

Sincerely,

Lewis M. Branscomb

Lewis M. Branscomb, *Director*
National Bureau of Standards

Enclosure

FOREWORD

This report evaluates the potential effects that a U.S. conversion to the metric system may have on the nation's foreign trade. To make this evaluation, a survey was conducted of exporters and importers trading in products that are "measurement sensitive." These are products in which dimensions are critical—e.g., tractors, clinical thermometers, vacuum pumps, typewriters, and computers.

Exporters and importers were asked to rank the factors that influence the sale or purchase of these products in international trade. They were also asked to estimate how much they would expect to export or import in 1975 if the U.S. had gone metric by 1970. The results are given in this volume.

Reports covering other substudies of the U.S. Metric Study are listed on the inside front cover. All of these, including this report, are under evaluation. Hence, they are published without prejudice to the comprehensive report on the U.S. Metric Study, which will be sent to the Congress by the Secretary of Commerce in August of 1971.

This report was prepared by the Bureau of Domestic Commerce of the Department of Commerce, under the direction of Thomas E. Murphy. Gerald F. Gordon was the principal staff member who designed and conducted the statistical survey and drafted this report. Other members of the Bureau of Domestic Commerce who made contributions to this study were Mrs. Dorothy Miller, David Cohen, Gerald Moody, Mrs. Elsie Dorman and her staff, and Mrs. Ann Wynn.

We are grateful to all who participated in this survey, particularly to the hundreds of companies and trade associations that supplied the data which made this report possible.

In this as in all aspects of the U.S. Metric Study, the program has benefited from the independent judgment and thoughtful counsel of its advisory panel and the many other organizations, groups and committees that have participated in the Study.

Daniel V. De Simone, *Director*
U.S. Metric Study

CONTENTS

Page

Letters of Transmittal .... iii, iv

Foreword v

Introduction 1

Chapter:

I. Summary of Findings 3

II. The Role of the United States in World Trade 7
  Export Trends (1960–69) 10
  Import Trends (1960–69) 11

III. Potential Effects of Metrication on U.S. Foreign Trade 14
  Trade Trends of Measurement-Standard Sensitive Products. 14
  Importance of the Measurement System 22
  Estimated Effects of U.S. Metrication on Foreign Trade ... 33
  Measurement Systems Characterizing U.S. Foreign Trade .. 38

IV. Potential Effects of U.S. Conversion to the Metric System on Selected Industries 43
  The Machine Tool Industry 43
  The U.S. Steel Industry 49
  The Air Conditioning and Refrigeration Industry 51
  The Industrial Pump and Compressor Industry 57
  The Industrial Fastener Industry 61
  The Electronic Computing Industry 66
  The Construction Machinery and Equipment Industry 69

Appendices:

A. Objectives and Methodology of Study 75

B. Statistical Tables 90
  1. U.S. Merchandise Trade Balance and Balance of Payments 91
  2. U.S. Exports and Imports of Selected Categories of Merchandise 92
  3. U.S. Exports of Selected Categories of Domestic Merchandise 93

7

Page

4. U.S. Exports of Merchandise by Country 94
5. Total U.S. Exports and Exports Financed by Military and Economic Aid 94
6. U.S. General Imports of Merchandise 95
7. U.S. General Imports of Selected Categories of Manufactured Goods 95
8. U.S. General Imports of Merchandise by Country or Area of Origin 96
9. U.S. Foreign Trade Balance for Measurement-Standard Sensitive Products 97
10. U.S. Export Summary of Measurement-Standard Sensitive Products 97
11. U.S. Import Summary of Measurement-Standard Sensitive Products 99
12. U.S. Exports of Measurement-Standard Sensitive Product Classes 101
13. U.S. Imports of Measurement-Standard Sensitive Product Classes 149

INTRODUCTION

The issue of U.S. conversion to the metric system is viewed by its advocates as potentially another significant step towards bringing about a more fully integrated international economy. Just as the Kennedy Round of trade negotiations in 1967 resulted in freer and unhampered passage of goods and services across national boundaries, so will the United States' conversion to the metric system. Its advocates claim that the system would lessen trade distortions resulting from differences in measurements and standards and help allocate resources in a more efficient manner.

Whether conversion to the metric system would bring about a more fully integrated international economy is not the central question to be answered by the U.S. Metric Study. Rather, what must be answered by the Study is whether conversion to the metric system is in the United States' best interest. To answer this question, PL–90–472 authorized the Secretary of Commerce to determine the effects of increased world-wide use of the metric system on the United States. Section 2 of the Law states: ". . . The Secretary, among other things, shall (1) investigate and appraise the advantages and disadvantages to the United States in international trade and commerce . . . of an internationally standardized system of weights and measures."

In accordance with Section 2 of the Law, this Study—one of fourteen major investigative components of the U.S. Metric Study—has been prepared. This Study's objective is "to evaluate the potential effects that U.S. conversion to metric measurements and standards may have on U.S. foreign trade." To achieve this objective a survey was conducted of exporters and importers trading in products which would be affected by conversion to the metric system. Appendix A presents details relative to the Study's objectives and methodology.

It is not the purpose of this Study to recommend whether the United States should or should not convert to the metric system. The U.S. Metric Study, which will evaluate the findings from all study components, will make appropriate recommendations concerning the question of U.S. conversion. The purpose of this Study is to provide data to be evaluated with the data from other Study components to enable the Secretary of Commerce to make appropriate recommendations to the United States Congress.

This report is divided into four sections. Chapter I summarizes the Study's findings. Chapter II briefly describes the role of the United States in world trade and discusses current problems connected with our Balance of Payments and the need to generate a larger trade surplus. Chapter III evaluates the potential impact of metrication on U.S. foreign trade, analyzing the results of the BDC survey of U.S. exporters and importers. Chapter IV consists of analyses of the potential impact of metrication on selected industries.

I. SUMMARY OF FINDINGS

1. U.S. export trade volume in product classes judged to be measurement-standard sensitive (MSS), amounted to $13.9 billion in 1969, up from $9.2 billion in 1965—a gain of 47.1 percent. In 1969, MSS exports accounted for 36.3 percent of total U.S. exports of $38.0 billion.

2. Canada is the largest market for MSS products shipped by the U.S. In 1969, MSS exports to Canada were $3.0 billion. The European Economic Community (EEC) countries were the second largest market, with U.S. exports of MSS products totaling $2.6 billion, 62 percent greater than the 1965 trade level. Combined, these two major markets account for over 40 percent of the total U.S. MSS exports.

3. The notion that the U.S. is losing exports to metric countries because its products are not designed and manufactured in metric units and standards appears to be ill-founded. U.S. exports of MSS products to metric countries are more than double the exports to nonmetric countries. Furthermore, some of the fastest growing markets for U.S. MSS products are the metric countries. For example, shipments to both Japan and EEC markets grew faster than total exports of MSS products. In the period 1965–69, exports of MSS products to metric countries grew 48.3 percent compared with a 44.6 percent growth to nonmetric countries.

4. Most exports of MSS products involve machinery and equipment, classified as nonelectrical machinery, transportation equipment, electrical equip-

ment, and instruments. Exports of MSS nonelectrical machinery account for nearly half of U.S. exports of MSS products.

5. Imports of MSS products were $6.0 billion in 1969, 129 percent higher than 1965's $2.6 billion. The growth of MSS imports was slightly less than for total imports during the period 1965–69. MSS imports accounted for close to 17 percent of total imports in 1969.

6. The largest supplier to the U.S. of MSS products is the EEC, the source of about 38 percent of total MSS imports. Japan ranks as the second largest supplier. MSS U.S. imports from Japan were the fastest growing of any country, rising 175 percent from 1965–69. The EEC and Japan combined accounted for 60 percent of total MSS imports.

7. Value-wise, the largest MSS import is transportation equipment, particularly motor vehicles from the EEC. Imports of motor vehicles from Canada were excluded as not being MSS. Imports from Japan, the second largest supplier of motor vehicles, increased over 900 percent from 1965–69.

8. The U.S runs a favorable trade balance in MSS products. Between 1965 and 1969, when the MSS trade surplus increased about $1.1 billion to reach a peak of $7.9 billion in 1969, the total trade surplus was shrinking. The U.S. has a trade surplus in MSS products with all countries, except Japan, which had a trade deficit of $478 million in 1969.

9. U.S. exporters and importers rank the measurement factor very low, indicating it affects U.S. trade only slightly. Exporters indicate that the top three factors promoting sales abroad of MSS products were reliability and reputation, superior technology, and high quality of product. These three factors account for over 60 percent of total rankings. As to promoting exports, the measurement system used to design and manufacture U.S. products (either U.S. customary or metric) received only 1.6 percent of the total rankings. The measurement system received only 3.3 percent of the total ranking of export deterrent factors.

10. Importers of MSS products also consider measurement as having little effect on trade. Price, reputation and reliability, and high quality of foreign product were the most important factors promoting imports. Only 3.5 percent of the rankings identified the measurement system as being an important promoting factor

11. The only instance where the measurement factor was cited as having an important effect on trade was in the importation of wood and lumber products and primary metal products. Importers in these product categories stated that because these products are generally designed and manufactured in U.S. customary units and engineering standards, their sales in the domestic market were greatly enhanced.

12. Lack of technological and quality advantages of foreign products was considered as the chief deterrent to importing. Once again, the measurement system ranked very low as a deterrent to importing—only about 3 percent of the total rankings.

13. A recurring theme throughout the Bureau of Domestic Commerce (BDC) survey was the importance of prices of products which were standard

and had a low level technology. For many of these products, the U.S. cannot compete with foreign producers. For example, steel, some types of machine tools, standard fasteners, standard pumps and compressors, and veneer and plywood are all products for which U.S. producers are not competitive pricewise.

14. Another recurring theme was the importance of a technological edge which U.S producers have over foreign producers. It made little difference whether it was a product such as a special fastener or something as complex as a computer or aircraft. Technology was the key factor to U.S. exports.

15. Exporters indicate that conversion to the metric system would have a positive effect on U.S. exports of MSS products. They were asked to make two estimates of the percentage change in their 1975 export trade over 1970 trade, assuming that among other things (a) the U.S. maintained its current measurement system, and (b) the U.S. converted to the metric system in 1970. Over 41 percent of the respondents thought their 1975 exports would be higher than 1970 if the U.S. converted to the metric system as compared with only 29 percent of the respondents who projected increases assuming the U.S. maintained its current measurement system. Similarly, only 2.5 percent of the respondents indicated a decline with conversion as compared with 15 percent of the respondents who estimated a decline assuming the U.S. maintained its current measurement system.

16. On a weighted basis, U.S. exporters in the BDC survey estimated their 1975 exports to be 2.7 percent higher if the U.S. had converted to the metric system in 1970 instead of maintaining its customary system. Assuming U.S. exports of measurement sensitive products were to increase to $20.6 billion in 1975, based on a straight line projection of these exports from 1965–69, it is estimated that U.S. exports of MSS products would be about $600 million larger in 1975, if the U.S. converted to the metric system.

17. Exports of most product classes in 1975 would change little by converting to the metric system according to exporters in the BDC survey. However, for some product classes, exports would show substantial increases. For example, exports of pumps and compressors would increase 18 percent; mechanical measuring devices, 18 percent; hand tools, 13 percent; printing trades machinery and equipment, 11 percent; special industrial machinery, 7 percent; and textile machinery, 6 percent. Only two product classes of exports would decline. Exports of mechanical power transmission equipment, except ball and roller bearings, were estimated to decline 0.6 percent and electric measuring instruments and test equipment, 0.7 percent.

18. Surveyed importers estimate that their 1975 imports would show no change assuming the U.S. converted to the metric system. With few exceptions, they stated that their sales of foreign made products would not increase if the U.S. converted to the metric system.

19. Of the respondent exporters, 17 percent stated that they designed and manufactured products in both U.S. customary and metric units and standards. However, many respondents merely described products designed and manufactured in U.S. customary units and standards in metric terms.

20. About 17 percent of the respondents stated that exports were hindered

because products were not manufactured in metric units and engineering standards, West Germany, France, Italy, the Netherlands, and Sweden were the most frequently mentioned countries hindering exports.

21. About 13 percent of the respondent exporters stated that they *actively* solicited export orders requiring production in metric units and engineering standards. A similar percentage indicated that in the last 3 years, export orders had been lost because the specification requiring the products to be manufactured in metric units and engineering standards could not be met.

22. With respect to the United Kingdom's conversion to the metric system, over 17 percent of the survey respondents thought that their export sales to the U.K. would be adversely affected if they did not ship in metric units and engineering standards. Another 57.5 percent thought their export sales would not be affected and 25 percent had no opinion.

23. About 35 percent of the total survey responses indicated that exports went to foreign affiliates, the remainder to foreign customers. Of that part shipped to foreign affiliates, about 38 percent went to foreign affiliates of the respondents for further processing, 58 percent was shipped for resale, and 4 percent for other purposes.

24. Over 90 percent of the respondents' exports were products designed and manufactured in U.S. customary measurement units and/or engineering standards. About 10 percent were products designed and manufactured in U.S. customary measurements and/or engineering standards, but *described* in labels, packages, engineering drawings, and catalogues in terms of metric units and/or engineering standards. Only one percent of exports were products designed and manufactured in metric units and/or engineering standards or were products modified or changed to include metric components, parts, or subassemblies.

25. Over 50 percent of the respondents' imports are products designed and manufactured in metric units and engineering standards. Only 19 percent of the imports are products designed and manufactured in U.S. customary units and engineering standards. About 19 percent are products designed and manufactured in metric units and engineering standards but are described in U.S. customary units and engineering standards, and 9 percent are metric products substantially modified or changed to include parts and components in U.S. customary units and engineering standards.

II. THE ROLE OF THE UNITED STATES IN WORLD TRADE

Because of its position as the principal trading and investing nation in the world, the United States has a strong influence on the stability and growth of international commerce. Many countries are dependent on the United States as an outlet for their goods and as a source of needed materials. Fluctuations in the rate of economic growth in the United States have significant impacts on the trade and economic growth of our trading partners. U.S. investment abroad, which has been paid for in large part by means of the country's trade surpluses, has contributed greatly to the growth of world-wide income and trade. Moreover, because the dollar is the principal trading and reserve currency, the U.S. balance of payments plays a predominant role in the international monetary system.

Conversely, the U.S. economy as a whole is much less dependent on foreign trade than most smaller countries. In fact, the trade of the United States is so small compared with the country's total economic activity that trade policy is of less concern here than in many other countries. Whereas U.S. exports now account for 17 percent of total world trade, these exports are equal in value to only about 4 percent of the country's gross national product. Further, after a period of exceptionally rapid growth, U.S. imports are now equal to 4 percent of the gross national product.

Traditionally, the United States has depended heavily on its merchandise trade surplus to counter the net outflows of private capital and the expenditures abroad for various Governmental programs. The United States had fairly sizeable trade surpluses in most of the years in the 1950's and unusually large surpluses from 1960 to 1965. However, the surpluses were small in 1966–67 and virtually nil in 1968–69. The surplus was larger in 1970 than it was in each of the 2 preceding years.

Despite trade surpluses over the years, the United States has had a deficit in its balance of payments (on the liquidity basis) in 18 of the past 20 years. The United States had substantial payments deficits in the early and mid-1960's despite substantial trade surpluses. While it was possible in 1968 to achieve a small payments surplus even though the trade surplus was negligible, this was accomplished only after substantial mandatory restrictions were placed on foreign investment by U.S. firms and after exceptional financial conditions in this country resulted in a temporary inflow of funds from abroad. In 1969, a second year in which the United States had a very small trade surplus, the payments deficit was the largest on record for this country. (See table 1, p. 91.)

The country's chronic balance-of-payments difficulties have resulted in a substantial depletion of our international reserve assets. The value of U.S. reserve assets ranged from $23 billion to $25 billion in the period 1950–57. The reserve assets declined each year from 1957, when they were valued at about $25 billion, to 1967 when they were valued at only $15 billion. At the end of 1969, U.S. international reserve assets were valued at $17 billion.

Gold stocks constitute the largest part of the reserve assets of the United States. However, in recent years, convertible foreign currencies and the U.S. reserve position in the International Monetary Fund (IMF) have become relatively more important in the total reserve position in the United States. In particular, gold stocks were equal in value to only 70 percent of the country's total reserve assets in 1969 compared with 92 percent in 1960. The advent of the so-called Special Drawing Rights in the IMF probably insures that gold will become even less important as a reserve asset in coming years.

In addition to the decline in U.S. holdings of reserve assets and the changes in the composition of those assets, there has occurred a sharp rise in U.S. liquid liabilities to foreigners. Such liabilities were valued at $21 billion at the end of 1960; by the end of 1969, they amounted to $42 billion. The largest increase in U.S. liquid liabilities to foreigners occurred in 1969 when the United States suffered a very large payments deficit. The liabilities to foreigners rose from $34 billion at the end of 1968 to $42 billion a year later. By far the largest part of the recent increase in U.S. liquid liabilities has consisted of a growth in the short-term liabilities to foreign countries reported by banks in the United States from $19 billion in 1968 to almost $28 billion at the end of 1969.

The United States has taken a number of stop-gap measures over the years to reduce the size of the balance-of-payments deficits, including: Changes in the Buy-American practices of defense agencies to increase purchases from domestic sources; restrictions on direct investment abroad by U.S. firms; interest equalization taxes to reduce the outflow of private funds; and restrictions on foreign lending by U.S. banks. In addition, the monetary policy of the United States has been influenced by international needs, reductions and restrictions of various kinds have been imposed on U.S. economic assistance to the developing countries, the staffs of the U.S. embassies have been reduced, the Export-Import Bank has liberalized the criteria that must be satisfied before loans will be granted to finance U.S. exports, a number of efforts have been made by the Government to induce U.S. businessmen to expand their exports, and the U.S. Travel Service has striven to encourage tourism in this country to offset the large expenditures abroad by American tourists. Many other programs and policies of the U.S. Government have been influenced to some extent by the country's international payments difficulties.

In view of the long history of U.S. international payments difficulties, it appears that fiscal and monetary policy alone cannot be expected to correct the situation. However, in the late 1960's and early 1970's, the fiscal and monetary policies appropriate for achieving a stabilization of the domestic economy were also appropriate for dealing with the international disequilibrium. Consequently, efforts to reduce price inflation and to reduce the rate of economic expansion were clearly in order. It appears, however, that restrictive policies will be discontinued for domestic reasons long before the international payments are brought into balance. In fact, there is likely to be a recurrence of the conflict in the policies appropriate for domestic and international balance that prevailed in the early 1960's. In that period, expansionary policies were needed for purposes of reducing unemployment and increasing the rate of economic growth; however, such expansionary policies were clearly not appropriate for dealing with the international payments deficits.

If the United States is to continue to play a significant role in international affairs, it will probably be necessary for this country again to become a substantial net exporter. The earnings from U.S. investment abroad, which have become more and more important as a credit item in the country's balance of payments, are not yet so large that they can offset perpetual deficits and also enable the country to meet its responsibilities abroad. A trade surplus of some magnitude will probably be required if the United States is to provide greater assistance to developing nations. Such a surplus would also make it easier for the country to reassert its leadership in bringing about greater freedom of international trade and investment. Much of the present sentiment in the United States for protectionist policies has no doubt arisen from the failure to deal effectively with the overall balance-of-payments problems.

The recent interest throughout the world in greater flexibility of international exchange rates may indicate that steps will be taken to deal more effectively in the future with the chronic balance-of-payments difficulties of various countries, particularly the United States. Several steps have been taken in the past few years to alter the exchange rates of countries with chronic payments deficits or surpluses. Because of the critical role of the U.S. dollar as an international reserve currency, it may not be feasible for the United States unilaterally to devalue the dollar. Nevertheless, results comparable to a devaluation of the dollar can perhaps be achieved by means of a revaluation of the currencies of the countries with chronic payment surpluses. Further, it may be possible to obtain general international agreement on the desirability of somewhat greater flexibility in the establishment of exchange rates than has existed in the past.

Export Trends (1960–69)

U.S. exports of domestic merchandise increased from about $20 billion in 1960 to $37 billion in 1969. Despite the great expansion in demand and the resulting price inflation in this country during the period of escalation of the Vietnam conflict, exports increased more rapidly in that period than at the beginning of the decade. The annual increases in exports averaged about 9 percent in the period 1963–69 compared with less than 5 percent in the period 1960–63. Manufactured goods accounted for about 85 percent of the increase in U.S. exports from 1960 to 1969. In 1969, about 75 percent of the exports (in terms of value) consisted of manufactures compared with about 65 percent in 1960. (See table 2, p. 92.)

Leading export items in recent years have included aircraft, electronic computers, power generating machinery, telecommunications apparatus, chemicals, and grains. From 1960 to 1969, the rise in exports of transport equipment, including aircraft, by about $4 billion and of nonelectrical machinery of all kinds by $3.8 billion accounted for about 45 percent of the growth from 1960 to 1969 in U.S. exports. (See table 3, p. 93.)

Despite the growth in U.S. exports in the 1960's, the U.S. share of world exports of manufactures declined in that decade.[1] The decline in the U.S. share of world exports of manufacturers was smaller in the 1960's, however, than it was in the 1950's when European and Japanese industries were experiencing especially rapid postbellum growth. The United States supplied 22 percent of the world exports of all manufactures in 1969 compared with 25 percent in 1960. The decline in the U.S. share of the world market for chemicals was greater than for any other major manufacturing sector, dropping in 1969 to only 22 percent compared with 30 percent in 1960. As for transport equipment as a whole, the U.S. share of world exports has been higher in the past 3 years (32 to 34 percent) than it was in the mid-1960's but about the same as it was in the early 1960's.

U.S. exports to the developed countries doubled in value in the period 1960–69 compared with a 60 percent increase to the developing countries. Canada, the largest foreign outlet for U.S. goods, accounted for 30 percent of the growth in U.S. exports from 1960 to 1969. As a result of the rapid expansion in U.S. exports to Japan, that country became the second largest foreign market for U.S. goods, displacing the United Kingdom. In 1969, Canada took 24 percent and Japan 9 percent of the U.S. exports. (See table 4, p. 94.)

A part, but evidently only a small part, of the decline in the U.S. trade balance in the late 1960's is attributable to the reduction in the financing of U.S. exports by means of foreign assistance programs. Exports financed by those programs rose in value from $2.7 billion in 1960 to $3.5 billion in 1964, then declined to $3.4 billion in 1966 to $2.7 billion in 1969. As a result of the reductions in foreign assistance, the assistance programs accounted for the financing of only 8 percent of the U.S. exports in 1968 and 7 percent in 1969 compared with from 12 to 13 percent in the early and mid 1960's. (See table 5, p. 94.)

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[1] World exports are defined as exports from the 14 major industrial countries. These nations, which account for approximately four-fifths of world exports of manufactures to foreign markets, are: United States, Austria, Belgium-Luxembourg, Canada, Denmark, France, Federal Republic of Germany, Italy, Japan, the Netherlands, Norway, Sweden, Switzerland, and the United Kingdom.

Foreign investment by U.S. companies has both positive and negative effects so far as the exports of the United States are concerned. Such investment establishes links between businesses in this country and abroad which tend to increase international trade. However, foreign investment may also act as a substitute for exports of merchandise. While analysis of the net effects of foreign investment on the exports of the country is beyond the scope of this report, studies show that sizeable shares of the U.S. exports of certain products have gone to foreign affiliates of U.S. firms. Exports of automobiles, machinery, and chemicals to foreign affiliates have been particularly significant. Moreover, in some parts of the world U.S. affiliates are among the most important earners of foreign exchange. Such foreign exchange earnings enable the countries in question to import goods from various countries, including the United States, which they otherwise would not be able to import.

A sizeable number of Americans are employed in export-related activities. In recent years, the production of goods for export and the provision of various kinds of services to carry out the export transactions have accounted for a little less than 5 percent of the total private employment in the United States. Export transactions have accounted for more than 10 percent of the employment in the mining and agricultural, forestry, and fishery industries. About 7 percent of the employment in the manufacturing industries has been attributable to exports.

Import Trends (1960–69)

Of particular significance with respect to U.S. international trade in the 1960's is the increase in imports of manufactured goods. Annual imports of manufactured goods increased in value by 235 percent from 1960 to 1969 whereas the imports of all other merchandise (including crude materials, fuels, food, beverages, and tobacco) rose only about 60 percent. Manufactured goods accounted for two-thirds of the value of the merchandise imported in 1969 compared with less than half of the imports in 1960. (See table 6, p. 95.)

The imports of manufactured goods, like U.S. imports generally, increased at a fairly slow pace from 1960 to 1964. It was not until 1965 that manufactured goods accounted for more than half of the total value of U.S. merchandise imports. As the following tabulation indicates, manufactured goods became more and more important in the total import picture as the decade came to a close.

The substantial increase in U.S. imports of manufactures in the period 1964–69 coincided with a sharp rise in economic activity in this country. Unemployment averaged only 3.8 percent of the civilian labor force in the years 1965–69 compared with 5.7 percent in 1960–64. Unfilled orders on the

Imports of Manufactured Goods as a Percent of Total U.S. Merchandise Imports

1960	47	1965	54
1961	46	1966	58
1962	48	1967	61
1963	48	1968	64
1964	50	1969	66

Source: Calculated from data in 1970 Economic Report of the President, p. 278.

average were equal to about 2.8 times the value of manufacturers' shipments in the years 1965–69 compared with 2.5 times manufacturers' shipments in 1960–64. Wholesale prices rose on the average by about 12 percent from 1964 to 1969 whereas such prices were nearly stable in the period 1960–64.

Of the $16 billion increase from 1960 to 1969 in the value of U.S. annual imports of manufactures, automobiles and parts, iron and steel, electrical machinery, nonelectric machinery, and nonferrous metals accounted for 60 percent. Imports of automobiles and parts were almost 8 times as great (in terms of value) in 1969 as they had been in 1960, which contributed significantly to the rapid growth in U.S. imports of manufactures in the late 1960's. In fact, if the imports of automobiles and parts had increased in the period 1960–69 at the same rate as U.S. imports generally, the United States would have had a trade surplus in 1969 of about $4.5 billion instead of the surplus that it actually had of only $0.7 billion.[1] (See table 7, p. 95.)

Of special interest with respect to the possibility of the United States adopting the metric system is the international trade in machinery of various kinds. In the period 1960–69, U.S. annual imports of machinery increased in value from $0.7 billion to $4.4 billion, at a rate almost 4 times that of U.S. imports generally. Among the principal contributors to the recent rise in imports of machinery are engines and parts; metalworking machinery; telecommunications apparatus; office machines; and electron tubes, transistors, semiconductor devices, and parts.

The developed countries have been the source of the bulk of the increase in U.S. imports in the past few years. Imports from developed countries were more than 3 times greater in 1969 than in 1960 (in terms of value) whereas imports from developing countries were only about 50 percent greater in the latter year than in the former. Annual imports from Canada rose from $2.9 billion in 1960 to $4.8 billion in 1965 and to $10.4 billion in 1969, the largest increase for any one supplier country. (See table 8, p. 96.)

Canada supplied 29 percent of the imports of the United States in 1969 compared with only 23 percent as recently as 1965. Transport equipment, including automobiles which are the subject of a trade agreement between the United States and Canada, accounted for a sizeable part of the recent growth in U.S. imports from Canada. In 1969, the United States imported from Canada transport equipment valued at $3.1 billion compared with $0.2 billion in 1965.

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[1] U.S. international trade (both exports and imports) in automotive products rose at a very rapid rate in the late 1960's largely because of the Canadian Automobile Agreement which resulted in conditional free trade in such products between the United States and Canada. In 1965, the United States had a trade surplus with Canada in automotive products of about $700 million; by the end of the decade, the surplus with Canada was very small and it appears that there may be a deficit in 1970.

III. POTENTIAL EFFECTS OF METRICATION ON U.S. FOREIGN TRADE

TRADE TRENDS OF MEASUREMENT-STANDARD SENSITIVE PRODUCTS

Exports: In the period 1965–69, U.S. export trade in those product classes judged to be measurement-standard sensitive (MSS) grew faster than the volume of total U.S. exports. In 1969 exports in MSS product classes totaled $13.9 billion, up from $9.4 billion in 1965,[1] a gain of 47 percent compared with a 38 percent increase in total exports for the same period. In 1969, MSS exports accounted for over 36 percent of total U.S. exports. (See app. B for detailed trade statistics of MSS products.)

Exports to Canada, the largest market for U.S. MSS products, were $3.0 billion in 1969, which was $1.1 billion greater than 1965 exports. The second largest market for U.S. shipments of MSS products is the European Common Market (EEC), to which exports totaled $2.6 billion in 1969, 62 percent higher than in 1965. Canada and the EEC accounted for about 40 percent of total U.S. MSS exports. MSS products exported to the United Kingdom (U.K.) grew over 57 percent from 1965–69, from $535 million to $840 million. Although exports of MSS products to the U.K. were larger than to Japan in 1965, the Japanese market grew faster and was slightly larger than the

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[1] This definition excludes motor vehicle and farm machinery exports to Canada because there are essentially inter-plant transfers of American companies. More than likely, these exports would not increase or decrease if the U.S. converted to the metric system. In 1969, these exports were $2.5 billion. The definition also excludes exports of *military* aircraft because these are generally negotiated sales between the U.S. and foreign governments.

U.K. market in 1969, increasing over 100 percent from $434 million to $883 million.

Nearly half of U.S. exports of MSS products go to countries other than Canada, EEC, U.K., and Japan. Latin American and many Asian countries are important markets for U.S. MSS products.

U.S. Exports of MSS Products, 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	13,922.7	11,308.8	9,465.1
Canada	3,027.5	2,589.0	2,103.9
EEC	2,581.3	1.931.1	1,563.0
United Kingdom	840.1	681.4	534.9
Japan	883.2	559.3	434.1
All other	6,590.6	5,548.0	4,829.2

The notion that the U.S. is losing exports in metric countries because its products are not designed and manufactured in metric units and engineering standards appears to be ill-founded. U.S. exports of MSS products to metric countries are over twice the exports of nonmetric countries and some of the fastest growing markets for U.S. MSS products are metric countries, e.g., Japan and EEC. From 1965–69, U.S. exports of MSS products to metric countries grew 48 percent as compared with a growth of about 45 percent to nonmetric countries.

Value of MSS Exports

(In Billions of Dollars)

Year	To metric countries	To nonmetric countries
1965	6.4	3.0
1966	7.0	3.4
1967	7.6	3.7
1968	8.6	4.0
1969	9.5	4.4

MSS nonelectrical machinery accounts for nearly half of total MSS U.S. exports. In 1969, MSS exports in this product category were $6.3 billion, having increased nearly 36 percent over 1965. The nonelectrical machinery group includes many of the high technology and fastest growing export product classes. For example, exports of electronic computing equipment grew 227 percent from 1965–69. Special industrial machinery increased 82 percent; air conditioning and refrigeration machinery, 64 percent; printing machinery and parts, almost 63 percent; and industrial trucks and tractors, 46 percent.

Canada and the EEC countries are the chief markets for nonelectrical machinery identified as MSS, accounting for over 40 percent of these exports. The fastest growing market was Japan, which increased over 100 percent from 1965–69.

U.S. Exports of Nonelectrical Machinery Identified as Measurement-Standard Sensitive, 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	6,282.6	5,262.5	4.625.8
Canada	1,582.7	1,440.5	1,255.9
EEC	1,098.0	803.5	668.4
United Kingdom	388.3	350.5	289.8
Japan	376.2	258.5	184.5
All other	2,837.4	2,409.5	2,227.2

The second most important class of MSS products is transportation equipment, which in 1969 had an export trade volume of $3.0 billion, an increase of 56 percent from 1965. The EEC countries are the largest single market for MSS transportation equipment, receiving U.S. exports of $657 million in 1969, nearly double the 1965 level.

Over 65 percent of MSS transportation equipment exports are commercial aircraft, aircraft engines and parts. These exports increased over 100 percent from 1965–69, advancing from $966 million to nearly $2.0 billion. The most important single market for U.S. commercial aircraft was the EEC. In 1969 U.S. shipment of aircraft and aircraft equipment and parts to the EEC was $557 million or about 28 percent of total exports of commercial aircraft. Other important markets for U.S. produced aircraft are Canada which purchased $252 million in 1969 and Japan, $164 million.

Excluding exports to Canada, exports of motor vehicles, buses, trucks, and parts and accessories remained almost unchanged from 1965–69 at a $1 billion level. Latin American countries are major markets for these exports,

U.S. Exports of Transportation Equipment Identified as Measurement-Standard Sensitive, 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	3,044.1	2,472.0	1,946.0
Canada	293.2	231.9	102.0
EEC	657.4	504.3	363.5
United Kingdom	101.0	84.9	54.6
Japan	189.8	116.2	137.7
All other	1,802.7	1,534.7	1,288.2

whereas the EEC countries, U.K., and Japan import only small quantities of motor vehicles from the U.S.

The third major export category of MSS products is electrical equipment and supplies, whose exports totaled $2.3 billion in 1969, up 73 percent from 1965. Major exports of MSS electrical equipment are radio and television broadcasting equipment, electrical measuring instruments and test equipment, motors and generators, and current-carrying wire devices.

Canada, an important market for U.S. electrical equipment, imported $527 million of MSS electrical equipment in 1969. The EEC market was the second largest followed by the U.K. The Japanese market has been growing rapidly; it increased 131 percent from 1965–69, moving from $51 million to $117 million.

U.S. Exports of Electrical Equipment Identified as Measurement-Standard Sensitive, 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	2,301.9	1,777.5	1,330.4
Canada	526.8	412.6	294.7
EEC	445.2	346.0	293.3
United Kingdom	238.1	139.7	108.1
Japan	117.4	87.1	50.9
All other	974.4	792.1	583.4

Other major export categories of MSS products include primary metals, mostly steel products. In 1969 these exports were valued at $664 million. Following closely were instruments and related products. These exports, mostly instruments for measuring, controlling, and indicating physical characteristics, amounted to $640 million in 1969. Finally, about $272 million of lumber and wood products exports were identified as being MSS. These included mostly veneer and plywood and sawmill and planing mill products.

Imports: U.S. imports of MSS products[2] were $6.0 billion in 1969, 129 percent higher than the 1965 level of $2.6 billion. Measurement-standard sensitive imports have grown slightly less than total imports, which increased 138 percent from 1965–69. However, the growth of MSS imports was much greater than MSS exports for the same time period.

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[2] This definition excludes: (1) Motor vehicles and farm machinery imports from Canada which are mostly interplant transfers of American companies. These exports totaled $3.3 billion in 1969 and are not likely to increase or decrease if the U.S. converted to metric. (2) Imports of consumer radio and television receiving sets from Japan which are specifically designed and manufactured by Japan for the U.S. market. These imports, $0.7 billion in 1969, would not likely increase or decrease by metrication. (3) Imports of sawmill and planing mill products from Canada because they are either shipped to the U.S. by affiliates of U.S. companies or they are specifically designed to U.S. standards by Canadian firms for the U.S. market. They would not likely increase or decrease by metrication. These imports amounted to $0.6 billion in 1969. (4) Imports of steel products because they are specifically designed to U.S. standards and measurements for the U.S. market. They would not likely increase or decrease by metrication. These imports were $1.4 billion in 1969.

The value of MSS imports as a percent of total imports is significantly lower than the proportion of MSS exports to total exports. In 1969, the import ratio was close to 17 percent as compared with a 36 percent ratio for exports. From 1965–69, the import ratio increased from 12 percent to 17 percent.

The largest supplier of MSS products to the U.S. is the EEC, from which about 38 percent of the total MSS imports come. In 1969, MSS imports from the EEC were nearly $2.3 billion, double the 1965 volume of $1.1 billion. Japan is the second largest supplier of MSS products to the U.S., shipping products totaling $1.4 billion in 1969, up 175 percent from 1965. MSS imports from the EEC and Japan combined accounted for over 60 percent of total MSS imports.

MSS imports from the U.K. are barely larger than those from Canada, amounting to $676 million and $665 million in 1969, respectively. Imports from Canada grew almost 163 percent from 1965–69, compared with a 65 percent increase from the U.K.

Value-wise, the largest amount of MSS imports is transportation equipment, particularly motor vehicles from the EEC, at $2.1 billion in 1969, up from $879.2 million in 1965. Over half of the imports came from the EEC.

In 1969 Japan was the second largest supplier of transportation equipment to the U.S. after ranking third in 1965. Motor vehicle imports from Japan increased over 900 percent from 1965–69, rising from $37 million to $372 million.

Very close to transportation equipment in value were MSS imports of nonelectrical machinery, which amounted to $1.9 billion in 1969, 137 percent above 1965. In 1969, the most important MSS nonelectrical machinery products imported were typewriters and other office equipment ($379 million), machine tools ($183.2 million), textile machinery ($166.7 million), and general industrial machinery and equipment ($333.9 million).

Imports from the EEC, the largest supplier of MSS nonelectrical machinery to the U.S., were $727.1 million in 1969, almost 40 percent of the total value of MSS nonelectrical machinery imports. Between 1965 and 1969, EEC imports climbed 113 percent. Major items imported from the EEC were

U.S. Imports of Measurement-Standard Sensitive Products, 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	6,044.5	3,932.2	2,643.1
Canada	665.3	417.1	253.4
EEC	2,278.9	1,647.1	1,072.7
United Kingdom	675.7	546.6	408.5
Japan	1,361.5	688.6	495.6
All other	1,063.1	632.8	412.9

U.S. Imports of Transportation Equipment Identified as Measurement Sensitive, 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	2,071.4	1,191.6	879.2
Canada [3]	34.2	13.5	12.4
EEC	1,149.3	729.3	502.1
United Kingdom	256.8	184.6	149.3
Japan	502.7	165.9	146.3
All other	128.4	98.3	69.0

[3] Excludes motor vehicle imports from Canada which are not classified as MSS.

machine tools, textile machinery, printing trades machinery, typewriters, and other office equipment.

Aside from the EEC, remaining U.S. imports of MSS nonelectrical machinery were divided almost evenly among Canada, U.K., Japan, and all other countries. Imports from these countries in 1969 ranged from $265 million to $298 million. The fastest growing supplier of MSS nonelectrical machinery is Japan, whose imports to this country increased over 500 percent, from $49.5 million in 1965 to $298.0 million in 1969.

U.S. Imports of Nonelectrical Machinery Identified as Measurement-Standard Sensitive, 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	1,859.8	1,315.0	783.4
Canada	276.7	171.6	103.6
EEC	727.1	560.6	341.4
United Kingdom	264.9	233.5	162.6
Japan	298.0	139.2	49.5
All other	293.1	210.1	126.3

Electrical equipment and supplies was the third largest U.S. import category of MSS products. These imports rose 157 percent from 1965–69, advancing from $467 million to $1.2 billion. In 1969, the largest MSS imports of electrical equipment were radio and television receiving sets ($224.8 million, excluding $727 million from Japan which are not classified as MSS); radio and television broadcasting equipment ($190.9 million); sewing machines ($109.2 million); and household cooking equipment, fans, and other appliances (93.9 million).

Japan is the largest single supplier of MSS electrical equipment to the U.S. market, shipping $283 million in 1969, slightly more than from the EEC and Canada.

U.S. Imports of Electrical Equipment Identified as Measurement-Standard Sensitive, 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	1,200.0	766.4	466.6
Canada	220.2	131.1	62.0
EEC	233.2	193.6	104.7
United Kingdom	118.7	95.6	73.4
Japan	282.8	195.5	147.0
All other	345.1	150.6	79.5

Other MSS product categories with significant U.S. import volume in 1969 include veneer, plywood, and hardwood flooring ($334 million); fabricated metal products ($271 million); instruments and related products ($177 million); and primary metal products ($132 million).

Trade Balance: The U.S. runs a favorable trade balance in those products identified as MSS. Throughout the last half of the sixties, this trade surplus was relatively stable, as compared with a declining surplus for total foreign trade for the same time period. In 1969, the surplus for MSS products was $7.9 billion, about $1.1 billion above the 1965 surplus. The U.S. has an MSS trade surplus with all countries, except Japan. The trade MSS deficit with Japan increased 678 percent from 1965–69, climbing from $61.5 million to $478.3 million.

The largest U.S. trade surplus of MSS products is with Canada. In 1969, this surplus was $2.4 billion, up from $1.9 billion in 1965. In 1969, the trade surplus with the EEC was quite small, amounting to $300 million; however, it fluctuates quite significantly, ranging from a $490 million surplus in 1965 to a $70 million deficit in 1968.

Over 70 percent of the U.S. trade surplus in MSS products is with countries other than Canada, EEC, United Kingdom, and Japan. Latin American countries and Asian countries, other than Japan, all import more MSS products from the U.S. than the U.S. imports from them.

The U.S. manages to maintain a trade surplus in all major MSS product categories, except for a small deficit in lumber and wood products. Over 56 percent of the MSS trade surplus occurs in nonelectrical machinery products, which in 1969 was $4.4 billion. The trade surplus in electrical equipment and transportation equipment was $1.1 billion and $973 million in 1969 respectively. The electrical equipment surplus increased from 1965–69, but the transportation equipment surplus swung from a high of $1.4 billion in 1968 to a low of $973 million in 1969.

U.S. Trade Balance for Measurement-Standard Sensitive Products 1969, 1967, 1965

(In Millions of Dollars)

	1969	1967	1965
Total, all products	7,878.2	7,376.6	6,822.0
Canada	2,362.2	2,171.9	1,850.5
EEC	302.4	284.0	490.3
United Kingdom	164.4	134.8	126.4
Japan	(478.3)	(129.3)	(61.5)
All other	5,527.5	4,915.2	4,416.3

IMPORTANCE OF THE MEASUREMENT SYSTEM

As part of the BDC survey, U.S. exporters and importers were asked to rank the five most important factors *currently* promoting and deterring their trade.[4] Insofar as the measurement factor—whether metric or U.S. customary—is concerned, the survey shows that U.S. exporters and importers consider it to have only slight effects on their trade. Invariably, the measurement system used to design and manufacture products ranked near the bottom of all factors affecting foreign trade.

The results of an earlier Department of Commerce (DOC) survey tend to support the views of the exporters and importers in the BDC survey. The DOC surveyed the Directors of U.S. Trade Centers in Stockholm, Milan, London, Frankfurt, and Bangkok, and those Washington-based officers responsible for foreign trade exhibits to seek their views on whether the U.S. customary measurement system was a detriment to U.S. trade.

In general, the DOC survey revealed that U.S. nonuse of the metric system in the manufacture of its products had presented no serious difficulties to U.S. exhibitors in making sales abroad. However, there were instances where some exhibitors lost business or were put to greater expense in concluding sales because their products were not metric. The Directors surveyed indicated that U.S. conversion to the metric system would improve sales of U.S. products in various countries; however, the situation was not preclusive to most U.S. firms.

Factors Affecting MSS Product Exports: U.S. exporters of MSS products indicated that the top three factors promoting sales abroad are reputation and reliability, superior technology, and high quality of products. These three factors accounted for nearly sixty percent of the total rankings by U.S. exporters. Other factors cited by U.S. exporters as promoting foreign sales were: U.S. prices are competitive with foreign producers, product maintenance and servicing is available abroad, U.S. companies maintain vigorous export promotion programs, and local and third country competiton is either weak or lacking.

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[4] This was restricted to nine major markets (countries): Canada, United Kingdom, West Germany, France, Belgium-Luxembourg, the Netherlands, Italy, Japan, and Mexico.

Admittedly, many of these factors are not mutually exclusive, but the major thrust of the findings is that the measurement system used to design and manufacture U.S. products is only a marginal factor in promoting sales abroad. Only 1.6 percent of the total rankings cited the measurement system as promoting exports.

In those instances where U.S. exporters cited deterrents to sales abroad, they generally stated that their prices were not competitive, there was strong local and third country competition, high tariff duties, or high shipping costs. These four factors accounted for 66 percent of the total rankings deterring U.S. exports.

As was the case with the promoting factors, U.S. exporters considered the measurement factor as marginal in deterring sales abroad. The measurement factor received only 3 percent of the total deterring rankings. See tables below.

Factors Promoting U.S. Exports of Measurement-Standard Sensitive Products

	Total weighted rankings [5]	Percent of total
1. Reputation and reliability of product	7,108	22.0
2. Superior technology of product	6,304	19.5
3. High quality product	5,351	16.6
4. Competitive pricing	2,591	8.0
5. Product maintenance and servicing is available	2,448	7.6
6. Growing foreign market	2,403	7.5
7. Vigorous company export promotion program	1,975	6.1
8. Products are designed and manufactured in U.S. customary units and engineering standards	423	1.3
9. Products are designed and manufactured in metric units and engineering standards	111	0.3
10. All others	3,536	11.1
Total	32,250	100.0

The reputation and reliability of U.S. products play a critical role in exporting most MSS products. Foreigners like to buy U.S. products because they have confidence in their performance and durability. U.S. exporters rated reputation and reliability as the most important factor promoting exports of primary metals, fabricated metal products, nonelectrical machinery, transportation equipment, and instruments and related products. Exporters of wood and lumber products and electrical equipment ranked it as the second and third most important factors respectively.

Unquestionably, another important factor which gives U.S. exporters a significant edge over foreign producers is the superior technology of their products. Exporters of electrical equipment ranked superior technology as the number one factor promoting trade, particularly of electrical measuring instru-

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[5] See footnote on next page.

Factors Deterring U.S. Exports of Measurement-Standards Sensitive Products

	Total weighted rankings [5]	Percent of total
1. Prices are not competitive	5,185	25.2
2. Strong local and third country competition	3,708	18.0
3. High tariff duties	2,379	11.5
4. High shipping costs	2,373	11.5
5. No technological advantage of products	1,571	7.6
6. No quality advantage of products	875	4.2
7. Nontariff barriers	857	4.2
8. Products are designed and manufactured in U.S. customary units and engineering standards	563	2.7
9. Products are designed and manufactured in metric units and engineering standards	96	0.5
10. All others	3,007	14.6
Total	20,614	100.0

[5] U.S. exporters/importers were asked to rank the five most important factors promoting/deterring their trade. For example, a factor, in the aggregate, may have been ranked one, fifty times; 2, forty-five times; 3, forty times; 4, none; 5, ten times. To statistically come up with a composite ranking for each factor, they were weighted, a number one ranking was weighted with a factor of five, a number 2, 4; 3, 3; 4, 2; and 5, 1. In the example, the composite ranking would be 560.

ments, motors and generators, welding apparatus, radio and television broadcasting equipment, and semiconductors.

Exporters of nonelectrical equipment ranked superior technology as the second most important factor promoting foreign sales. However, for many categories of nonelectrical machinery it is the most important factor. Exporters of machine tools, food products machinery, paper industries machinery, mechanical power transmission equipment, and electronic computing equipment all rely on technology to promote sales abroad.

In the transportation equipment group, exporters indicated that technology was the most important factor promoting sales of commercial aircraft abroad. Exporters of motor vehicles rated it second, ranking it behind reputation and reliability of product.

The BDC survey revealed that the prices of many U.S. products are not competitive with comparable foreign-made products. Rarely did U.S. exporters rate price as the top factor promoting U.S. sales abroad. When it was rated as a promoting factor, it generally was ranked fourth or fifth.

Many exporters commented on the adverse effect that rising input costs were having on their competitiveness with foreign producers. Rising product costs coupled with high tariff duties and high shipping costs were the most frequently mentioned obstacles to greater U.S. sales abroad. U.S. prices were the major deterrent to exporting steel, standard fasteners, farm machinery, machine tools, radio and television broadcasting equipment, motor vehicles, hoists and industrial cranes, and other products. This is not to imply that the U.S. does not export in these categories, but that price is an important deterrent to selling abroad.

As stated previously, exporters rated the measurement system used to design and manufacture products as being insignificant when related to other factors for which trade is a function. This was almost universally true for most products.

Exporters of steel products indicated that the measurement system had absolutely no effect on foreign sales. Exporters of airconditioning and refrigeration equipment, farm machinery, construction machinery, paper industries machinery, special industry machinery, mechanical power transmission equipent, ball and roller bearings, household equipment and appliances, surgical and medical instruments, and radio and television broadcasting equipment, all indicated that the measurement system had very slight effect on foreign trade.

Exporters of standard fasteners, hand tools, machine tools, standard valves and pipe fittings, standard pumps and compressors, and plumbing fixture fittings indicated that the measurement system had some effect on exports, but it did not preclude exporting. Other factors were cited as more important than measurement in influencing exports—namely, price. Exporters of custom-built pumps and compressors, valves and pipe fittings, fasteners, machine tools, representing the major portion of U.S. trade in these products, are not hindered by the measurement system in selling abroad.

The following tables list the most important factors promoting and deterring U.S. exports of MSS by major product grouping.

Factors Identified as Affecting U.S. Exports for Products Classified as MSS in Major Product Groups

Wood and lumber products			
Promoting factors		Deterring factors	
	Percent of total rankings		Percent of total rankings
1. High quality products	22.3	1. High shipping costs	17.1
2. Prices are competitive	21.1	2. Prices are not competitive	16.6
3. Reputation and reliability of product	16.8	3. Stagnant foreign market	12.8
4. Vigorous company export program	12.1	4. High tariff duties	12.3
5. Growing foreign market	9.5	5. Strong local and third country competition	11.2
6. Measurement systems [6]	1.4	6. Measurement systems [6]	5.3
7. All others	16.8	7. All others	24.7
Total	100.0		100.0

Factors Identified as Affecting U.S. Exports for Products Classified as MSS in Major Product Groups—Continued

Primary metal products

Promoting factors	Percent of total rankings	Deterring factors	Percent of total rankings
1. Reputation and reliability of products	18.8	1. Prices are not competitive	28.9
2. Higher quality products	14.7	2. Strong local and third country competition	17.2
3. Prices are competitive	14.1	3. High shipping costs	14.5
4. Superior technology	12.5	4. High tariff duties	12.0
5. Lack of local and third country competition	11.0	5. No technological advantage	7.0
6. Measurement systems [6]	0.3	6. Measurement systems [6]	....
7. All others	28.6	7. All others	20.4
Total	100.0		100.0

Fabricated metal products

Promoting factors	Percent of total rankings	Deterring factors	Percent of total rankings
1. Reputation and reliability of product	22.2	1. Prices are not competitive	25.3
2. Higher quality product	21.8	2. High tariff duties	17.3
3. Super technology of product	17.0	3. Strong local and third country competition	14.8
4. Prices are competitive	13.5	4. High shipping costs	11.1
5. Growing foreign markets	7.8	5. No technological advantage	7.2
6. Measurement systems [6]	2.5	6. Measurement systems [6]	5.1
7. All others	15.2	7. All others	19.2
Total	100.0		100.0

Factors Identified as Affecting U.S. Exports for Products Classified as MSS in Major Product Groups—Continued

Nonelectrical machinery and equipment

Promoting factors	Percent of total rankings	Deterring factors	Percent of total rankings
1. Reputation and reliability of product	22.9	1. Prices are not competitive	25.4
2. Superior technology of product	19.7	2. Strong local and third country competition	17.6
3. Higher quality product	15.5	3. High shipping costs	12.1
4. Product maintenance and servicing available	9.1	4. High tariff duties	11.3
5. Prices are competitive	6.8	5. No technological advantage	7.7
6. Growing foreign market	6.5	6. Measurement systems[6]	3.1
7. Measurement systems[6]	2.0	7. All others	22.8
8. All others	17.5		
Total	100.0		100.0

Electrical equipment and supplies

Promoting factors	Percent of total rankings	Deterring factors	Percent of total rankings
1. Superior technology of product	24.5	1. Strong local and third country and competitive	24.9
2. Reputation and reliability of product	19.7	2. Prices are not competitive	22.7
3. Higher quality products	19.0	3. No technological advantage of products	11.9
4. Prices are competitive	9.9	4. High tariff duties	6.3
5. Growing foreign markets	9.0	5. No company export promotion program	5.7
6. Lack of local and third country competition	5.0	6. High shipping costs	5.6
7. Product maintenance and servicing is available	4.4	7. Measurement systems[6]	5.5
8. Measurement systems[6]	1.6	8. All others	17.4
9. All others	6.9		
Total	100.0		100.0

Factors Identified as Affecting U.S. Exports for Products Classified as MSS in Major Product Groups—Continued

Transportation equipment

Promoting factors		Deterring factors	
	Percent of total rankings		Percent of total rankings
1. Reputation and reliability of product	24.0	1. Nontariff barriers	21.0
2. Superior technology	21.6	2. Prices are not competitive	20.6
3. Higher quality products	11.8	3. Strong local and third country competition	16.6
4. Product maintenance and servicing is available	9.4	4. High shipping costs	14.8
5. Vigorous company export promotion program	7.3	5. Stagnant foreign market	7.6
6. Growing foreign markets	7.2	6. No quality advantage of product	5.3
7. Measurement systems[6]	0.1	7. Measurement system[6]	2.3
8. All others	18.6	8. All others	11.8
Total	100.0		100.0

Instruments and related products

Promoting factors		Deterring factors	
	Percent of total rankings		Percent of total rankings
1. Reputation and reliability of product	21.9	1. Prices are not competitive	23.4
2. Higher quality product	19.6	2. No company export promotion program	13.1
3. Superior technology	17.2	3. Strong local and third country competition	12.1
4. Growing foreign markets	11.5	4. No quality advantage of product	11.2
5. Product maintenance and servicing is available	8.0	5. Product maintenance and servicing is not available	6.4
6. Vigorous company export promotion program	6.5	6. Measurement systems[6]	5.8
7. Measurement systems[6]	0.6	7. All others	28.0
8. All others	14.7		
Total	100.0		100.0

[6] This includes the combined rankings for the two measurement-standard factors: Products are designed and manufactured in U.S. customary units and engineering standards and products are designed and manufactured in metric units and engineering standards.

Factors Affecting Imports of MSS Products: The BDC survey asked U.S. importers to rate the five most important factors promoting and deterring buying of foreign made MSS products. Most of the importers surveyed were U.S. manufacturers who either imported the goods directly from abroad or bought them from an import broker, agent, or foreign manufacturer's representative.

As expected U.S. importers rated competitive price as the most important factor promoting the purchase of foreign-made products. Nearly one-third of the total rankings favored the competitive pricing factor. The second most important factor promoting imports was the reputation and reliability of foreign-made products. Combined, they account for 50 percent of the factors promoting the purchase of foreign-made products.

As with exporters, U.S. importers rated the measurement system used to design and manufacture foreign-made products as having only slight effects on the promotion of trade in foreign products. The only instances where measurement was a significant factor were in wood and lumber products and primary metal products. Importation of these products is greatly enhanced if they are designed and manufactured in U.S. customary measurements and engineering standards. Only 3.4 percent of the total rankings rated the measurement factor as being important.

Insofar as imports are concerned, U.S. importers rated the top deterrents accounting for 60 percent of the total rankings as no technological advantage, no quality advantage, and noncompetitive prices. Other factors cited were strong U.S. competition, product maintenance and servicing not available, and no company sales promotion program. Measurement was rated as not having much effect in deterring U.S. imports. It received only 2.7 percent of the total rankings. This is rather interesting inasmuch as over 50 percent of

Factors Promoting U.S. Imports of MSS Products

	Total weighted rankings	Percent of total
1. Prices are competitive	2,240	31.1
2. Reputation and reliability of products	1,390	19.3
3. High quality products	705	9.8
4. Superior technology of products	700	9.7
5. Lack of U.S. competition	535	7.4
6. Product maintenance and servicing is available	410	5.7
7. Growing U.S. market	375	5.2
8. Products are designed and manufactured in U.S. customary units and standards	245	3.4
9. Vigorous company import sales promotion program	225	3.1
10. Low shipping costs	95	1.3
11. Products are designed and manufactured in metric units and engineering standards	5	0.1
12. All others	270	3.9
Total	7,195	100.0

the total imports of MSS products in the survey were products designed and manufactured in metric units and engineering standards.

Factors Deterring U.S. Imports of MSS Products

	Total weighted rankings	Percent of total
1. No technological advantage of product	2,490	22.7
2. No quality advantage of product	2,217	20.2
3. Prices are not competitive	1,947	17.8
4. Strong U.S. competition	930	8.5
5. Product maintenance and servicing is not available	837	7.6
6. No company import sales promotion program	741	6.8
7. High shipping costs	387	3.5
8. Products are designed and manufactured in metric units and engineering standards	294	2.7
9. High U.S. tariff duties	177	1.6
10. Stagnant U.S. market	21	0.2
11. Products are designed and manufactured in U.S. customary units and engineering standards	15	0.1
12. All others	906	8.3
Total	10,962	100.0

Unquestionably, competitive pricing was ranked by U.S. importers as the top factor promoting the importation of every major category of measurement-standard sensitive products. For MSS products classified as primary metals, nearly 40 percent of the total rankings by U.S. importers favored the factor of competitive pricing. Similarly, competitive pricing received over one-third of the ranking of U.S. importers for fabricated metal products, electrical equipment, and transportation equipment. Data for instruments and related products are sparse and are not reported to avoid possible disclosures.

Reputation and reliability was rated the second most important factor promoting MSS imports classified as wood and lumber, primary metals, nonelectrical machinery, electrical equipment, and transportation equipment.

Rarely did U.S. importers rate the measurement factor as important in promoting exports except for wood and lumber products and primary metal products. For wood and lumber products, U.S. importers ranked measurement as the fourth among promoting factors. In fact, this is the only instance where the measurement factor accounted for anything like 15 percent of the total rankings.

Similarly, the importation of primary metal products is also greatly enhanced if they are designed and manufactured in U.S. customary units and engineering standards. Importers ranked this factor as the fifth most important, receiving 7 percent of the total rankings.

The only other product category where the measurement system was identified as promoting U.S. imports was electrical equipment. However, it was rated quite low in relation to all other promoting factors.

More interesting than rankings of promoting factors was the ranking of deterring factors by U.S. importers. There was much less agreement among U.S. importers on what factors deterred the importation of foreign-made products. For example, U.S. importers of fabricated steel products and transportation equipment rated "strong U.S. competition" as the leading deterring factor. Importers of primary metals rated "no company import sales program" as the chief deterring factor. Nonelectrical machinery importers indicated that the lack of technological advantage over domestic machinery was the number one hindrance to importing foreign-made machinery. Importers of wood and lumber products and electrical equipment said that their prices were not competitive. This factor deterred them from importing. This appears to be inconsistent with the earlier statement that importers in these same product categories had ranked "competitive pricing" as the leading promoting factor; however, U.S. importers in most instances are referring to different products in the same product groupings. Certain MSS products imported in these product categories are competitively priced, but other MSS products included in the survey which are not imported in large volume, are hindered by price.

Importers of fabricated metal products, nonelectrical machinery, and transportation equipment indicated the measurement factor had slight effect on trade. Because these groups of foreign-made products are generally designed and manufactured in metric units and engineering standards, they are slightly more difficult to sell in the domestic market. Of the total deterring rankings by

Factors Affecting the Importation of MSS Products

Wood and lumber products			
Promoting		Deterring	
	Percent of total rankings		Percent of total rankings
1. Prices are competitive	25.0	1. Prices are not competitive	33.3
2. Reputation and reliability of product	16.7	2. No quality advantage of product	24.2
3. Lack of U.S. competition	16.7	3. High shipping costs	20.8
4. Products are designed and manufactured in U.S. customary units and engineering standards	14.9	4. No technological advantage of product	11.7
5. Higher quality product	8.3	5. Strong U.S. competition	2.5
6. Growing U.S. market	6.7	6. Measurement systems	.....
7. Company import sales promotion program	5.0	7. All others	7.5
8. All others	6.7		
Total	100.0		100.0

Factors Affecting the Importation of MSS Products—Continued

Primary metal products			
Promoting		Deterring	
	Percent of total rankings		Percent of total rankings
1. Prices are competitive	39.6	1. No company import sales promotion	24.6
2. Reputation and reliability of product	24.1	2. No technological advantage of product	23.6
3. Company import sales promotion program	11.4	3. Prices are not competitive	19.6
4. Lack of U.S. competition	8.8	4. No quality advantage of product	17.3
5. Products are designed and manufactured in U.S. customary units and engineering standards	7.0	5. Strong U.S. competition	5.3
6. Low shipping costs	2.6	6. Measurement systems	.....
7. Higher quality product	2.6	7. All others	9.6
8. Superior technology	2.6		
9. All others	1.3		
Total	100.0		100.0

Fabricated metal products			
Promoting		Deterring	
	Percent of total rankings		Percent of total rankings
1. Prices are competitive	33.3	1. Strong U.S. competition	16.4
2. Higher quality products	26.7	2. No quality advantage of product	16.1
3. Reputation and reliability of product	20.0	3. No technological advantage of product	14.1
4. Lack of U.S. competition	13.3	4. Prices are not competitive	14.1
5. Superior technology	6.7	5. High shipping costs	7.3
6. Measurement system	.....	6. Product maintenance and servicing not available	6.7
		7. No company sales import promotion program	4.8
		8. Products are designed and manufactured in metric units and engineering standards	3.4
		9. All others	7.6
Total	100.0		100.0

Factors Affecting the Importation of MSS Products—Continued

Nonelectrical machinery

Promoting		Deterring	
	Percent of total rankings		Percent of total rankings
1. Prices are competitive	22.9	1. No technology advantage	28.5
2. Reputation and reliability of product	17.5	2. No quality advantage	21.6
3. Superior technology	14.9	3. Prices are not competitive	11.9
4. Higher quality products	14.7	4. Product maintenance and servicing not available	11.5
5. Growing U.S. market	9.6	5. Strong U.S. competition	10.5
6. Lack of U.S. competition	5.8	6. No company import sales promotion program	4.8
7. Measurement system	.....	7. Products are designed and manufactured in metric units and engineering standards	3.7
8. All others	14.6	8. All others	7.5
Total	100.0		100.0

Electrical equipment

Promoting		Deterring	
	Percent of total rankings		Percent of total rankings
1. Prices are competitive	35.3	1. Prices are not competitive	25.3
2. Reputation and reliability of product	19.2	2. No technological advantage of product	21.2
3. Lack of U.S. competition	10.1	3. No quality advantage of product	21.2
4. Superior technology	9.0	4. No company import sales promotion program	6.4
5. Higher quality product	8.2	5. Product maintenance and servicing is not available	4.7
6. Product maintenance and servicing is available	6.3	6. Strong U.S. competition	2.7
7. Products are designed and manufactured in U.S. customary units and engineering standards	3.8	7. High U.S. tariff duties	2.5
8. Growing U.S. market	3.6	8. Measurement system	.....
9. All others	4.5	9. All others	8.5
Total	100.0		100.0

Factors Affecting the Importation of MSS Products—Continued

Transportation equipment

Promoting		Deterring	
	Percent of total rankings		Percent of total rankings
1. Prices are competitive........	34.1	1. Strong U.S. competition......	35.2
2. Reputation and reliability of product..................	19.2	2. No technological advantage of product................	21.9
3. Product maintenance and servicing is available........	17.8	3. No quality advantage of product..................	10.5
4. Higher quality product.......	9.0	4. High U.S. tariffs............	9.9
5. Lack of U.S. competition.....	6.3	5. High shipping costs..........	8.9
6. Growing U.S. market........	6.3	6. Products are designed and manufactured in metric units and engineering standards..	3.7
7. Measurement system.........	.....	7. All others..................	9.9
8. All others..................	7.3		
Total.....................	100.0		100.0

importers of fabricated metal products, 3.4 percent were for the measurement factor; for electrical machinery, 3.7 percent; and transportation equipment, 3.7 percent.

ESTIMATED EFFECTS OF U.S. METRICATION ON FOREIGN TRADE

Impact on Exports: Available data indicate that U.S. exports in all probability would improve moderately by conversion to the metric system. However, contrary to speculation, the potential increase in U.S. exports resulting from metrication would not approach $10–25 billion. Such speculation clearly underestimates ability of U.S. exporters to sell in foreign markets. Clearly, if there was a potential $10–25 billion market abroad for U.S. exporters, they would have made the necessary conversion to metric long before now.

As part of the BDC survey, U.S. exporters were asked to estimate the percentage change in their 1975 export trade over their 1970 trade, assuming, among other things (a) the U.S. maintained its current measurement system, and (b) the U.S. converted to the metric system in 1970. The rationale for asking exporters to make these two estimates was to hold constant all variables on which foreign trade is dependent except the measurement system, and to ascertain the effect, if any, metrication would have on exports. Put differently, the effects of metrication would be the net difference between the respondents' two estimates.

Out of the 395 respondents, 55 percent stated there would be "no change" in their 1975 exports over the 1970 trade levels assuming the U.S. maintained

Respondents' Estimated Percent Change in Export Shipments in 1975 as Compared with 1970 Assuming the U.S. Maintained its Current Measurement System

(Number of Respondents)

Estimated percentage change											
Plus						No change	Minus				
4.9 and less	5.0 to 9.9	10.0 to 24.9	25.0 to 49.9	50.0 to 99.9	100.0 and over		4.9 and less	5.0 to 9.9	10.0 to 24.9	25.0 to 49.9	50.0 to 99.9
2	9	19	38	30	17	220	—	8	23	21	8

its current measurement system. Some of the Nation's largest corporations, which reported significant increases in exports from 1967–69, were among the respondents who estimated "no change." In most instances the "no change" answer merely reflected the respondent's view that the effect of metrication on his firm's export position would be negligible. "No change" did not mean that the respondent's export level would remain unchanged between 1970 and 1975. Another reason for the "no change" answer was that not many U.S. firms make 5-year projections of exports, particularly by product class. This fact was established in another DOC study. The reason may also be that it was easier for the respondents to merely check the "no change" block rather than take the time to make a quantity estimate.

At any rate, 45 percent of the respondents estimated that there would be a percentage change in 1975 exports over 1970 assuming the U.S. maintained its current measurement system. About 29 percent projected an increase in exports; over half of these projected a gain of 25 percent or more. About 15 percent of the respondents estimated a decline in exports from 1970–75 if the U.S. maintained its current measurement system. Nearly half of those respondents projecting a decline estimated a decrease of 25 percent or more. (Four other respondents reported increases in exports but declined to quantify their estimates. Similarly, 15 respondents reported decreases.)

Estimates of exports assuming the U.S. had converted to the metric system were much higher than exports expected assuming the maintenance of the current measurement system. Over 41 percent of the respondents thought 1975 exports would be higher assuming the U.S. converted as compared with only 29 percent who projected increases assuming maintenance of the current system. Similarly, only 2.5 percent indicated a decline with conversion as compared with 15 percent estimating a decline assuming the U.S. maintained the current system. Nearly all exporters who foresaw a decline in exports under the current system of measurement expected an improvement or gain in their exports if the U.S. converted to the metric system. The number reporting

Respondents' Estimated Percent Change in Export Shipments in 1975 as Compared with 1970 Assuming the U.S. Converted to the Metric System in 1970

(Number of Respondents)

Estimated percentage change											
Plus						No change	Minus				
4.9 and less	5.0 to 9.9	10.0 to 24.9	25.0 to 49.9	50.0 to 99.9	100.0 and over		4.9 and less	5.0 to 9.9	10.0 to 24.9	25.0 to 49.9	50.0 to 99.9
3	25	43	34	36	18	218	—	3	4	1	1

"no change" in 1975 exports remained almost the same under both assumptions.

Unweighted, the foregoing estimates suggest there would be an improvement in U.S. exports if the U.S. converted to the metric system, but the question is "how much?" The foregoing analysis gives the same weight to a small exporter as it does to a large exporter. Consequently, it was necessary to relate the respondents' estimates to their trade to determine whether there would be a net increase or decrease in their exports if the U.S. maintained its current measurement system or converted to metric.

On a weighted basis, U.S. exporters estimated their 1975 exports would be larger if the U.S. converted to the metric system in 1970 than if it maintained its current system. Taking respondents' estimates for both assumptions and relating them to 1969 export trade volume indicates that 1975 exports of respondents would be 2.7 percent larger if the U.S. converted to the metric system. By MSS product grouping, the percentage varies significantly. Exporters in 29 MSS product groupings indicated 1975 trade would be larger if the U.S. had converted to the metric system, and those in 8 MSS product groupings indicated no change in trade levels. Only two product groupings showed higher exports if the U.S. maintained its current system. Data were also compiled for 19 other product groupings, which indicates there would be an improvement in U.S. trade if the U.S. converted; however, they are not reported because they are sparse and would involve disclosures.

A rough calculation using a straight-line projection yields an estimate of $20.6 billion of U.S. exports of MSS products in 1975, if the U.S. maintained its current measurement system. Applying the exporters' 2.7 percent estimate to the projected 1975 level if the U.S. maintained its current measurement system, it is estimated that U.S. exports would be about $21.2 billion if the U.S. converted. The difference between the two estimates is $600 million.

Whether the 2.7 percent estimate will increase over time cannot be demonstrated with the available data. However, the probabilities are that it will increase if the rest of the English-speaking world converts to the metric system.

Estimated Percent Difference in the 1975 Exports of Respondents if the U.S. Converted to the Metric System Rather than Maintain its Current Measurement System

Description of MSS products	Percent difference
Veneer and plywood	15.7
Steel mill products	....
Copper mill products	3.2
Mechanics' hand service tools	13.1
Fabricated platework products	3.0
Valves and pipe fittings	5.9
Internal combustion engines	....
Farm machinery	0.7
Construction machinery	5.3
Mining machinery	0.6
Hoists, cranes, and monorails	5.2
Metalworking machinery	3.2
Machine tool accessories	1.3
Food products machinery	0.6
Textile machinery	6.0
Printing trades machinery	10.5
Special industry machinery	6.6
Pumps and compressors	17.7
Ball and roller bearings	....
Power transmission equipment	−0.6
Typewriters	0.2
Electronic computing equipment	0.4
Calculating and accounting machines	....
Refrigeration and air conditioning equipment	5.2
Electronic measuring equipment	−0.7
Welding apparatus	2.5
Household refrigerators and freezers	....
Current carrying wiring devices	....
Radio and TV communication equipment	2.2
Semiconductors	....
Motor vehicles	0.7
Commerical aircraft and parts	0.1
Engineering and scientific instruments	2.6
Optical instruments and lenses	4.9
Mechanical measuring devices	17.5
Automatic temperature controls	....
Surgical and medical instruments	0.5
Surgical appliances and supplies	3.3

Impact on Imports: Most U.S. importers in the BDC survey indicate that U.S. conversion to the metric system would have little or no effect on trade. Many importers explained that they have overcome most of the problems connected with measurement and engineering standards. For example, a significant portion of U.S. imports is designed and manufactured in metric units and engineering standards and is readily marketable in the U.S. The largest U.S. import in value of MSS products is motor vehicles, most of which, excluding those coming from U.S. affiliates in Canada, are designed and manufactured in metric units and engineering standards. The chief reason these imports are marketable are price, their reputation and reliability, and the extensive maintenance and servicing system foreign manufacturers have established in the U.S. It can be argued that U.S. imports of motor vehicles would rise if the U.S. converted because there would be more maintenance outlets available to owners of foreign-made vehicles of metric design. However, knowledgeable sources indicate that this is doubtful because the number of auto repair shops providing service to metric design motor vehicles is increasing each year. Morever, U.S. manufacturers are increasing the use of metric parts on their motor vehicles so eventually most auto repair shops will be providing service to both metric and U.S. customary designed and engineered motor vehicles.

Similarly, U.S. imports of textile, printing, and paper machinery are examples of products which are generally designed and manufactured in metric units and engineering standards but are marketable in the U.S. To overcome many of the measurement and standard problems connected with these types of machinery, foreign manufacturers supply metric tools to their customers and have established inventories of spare parts and components in the U.S. to readily service their machinery. This may be an added cost to foreign manufacturers, but in most instances they are generally able to absorb the cost and price their machinery below comparable U.S.-made machinery.

Another large segment of imports which would not likely be affected by U.S. conversion to the metric system is veneer and plywood products. Foreign manufacturers have a substantial portion of the U.S. market for these products because their products are generally designed to U.S. customary measurement units and standards. If the U.S. converted to the metric system, foreign producers would in all probability ship their products in metric, and the result would have little effect on imports.

Another large segment of imports which would not likely be affected by by U.S. conversion is the importation of equipment and parts such as sewing machines, typewriters and semiconductors from foreign affiliates of U.S. parent companies.

Importer respondents to the BDC survey indicated that there would be little or no percent change in imports in 1975 over 1970 if the U.S. converted to the metric system or maintained its current system.

A total of 124 respondents made estimates of 1975 imports assuming the U.S. maintained its current measurement system. As was the case with exporters, a very high percentage (67 percent) stated that there would be "no change" in their 1975 imports over 1970 trade levels. Twenty percent estimated an increase in imports, and 13 percent a decline.

When asked to estimate the percent change in their 1975 imports over 1970 assuming the U.S. had converted to the metric system, the same respondents made estimates similar to those made assuming the U.S. maintained its current measurement system. There was no discernible change in these estimates to indicate that U.S. imports would be affected in any important way. The percent of respondents reporting "no change" was 69 percent, up slightly from

Respondents' Estimated Percent Change in Imports Between 1970 and 1975 Assuming the U.S. Maintained Its Current Measurement System

(Number of Respondents)

Estimated percentage change											
Plus						No change	Minus				
4.9 and less	5.0 to 9.9	10.0 to 24.9	25.0 to 49.9	50.0 to 99.9	100.0 and over		4.9 and less	5.0 to 9.9	10.0 to 24.9	25.0 to 49.9	50.0 to 99.9
1	3	9	12	0	0	83	1	6	9	0	0

the percent estimated assuming the U.S. would maintain its current measurement system.

Furthermore, when importers' estimates were related to import trade level to determine whether imports would be larger if the U.S. maintained its current system or converted to metric, there was only a small increase, less than 1 percent. The conclusion to be drawn from these estimates is that U.S. importers would not expect their trade to be affected if the U.S. converted to the metric system.

Respondents' Estimated Percent Change in Imports in 1975 as Compared with 1970 Assuming the U.S. Converted to the Metric System

(Number of Respondents)

Estimated percentage change											
Plus						No change	Minus				
4.9 and less	5.0 to 9.9	10.0 to 24.9	25.0 to 49.9	50.0 to 99.9	100.0 and over		4.9 and less	5.0 to 9.9	10.0 to 24.9	25.0 to 49.9	50.0 to 99.9
1	4	9	11	1	—	85	2	4	5	—	—

MEASUREMENT SYSTEMS CHARACTERIZING U.S. FOREIGN TRADE

Measurement Systems of U.S. Exports: From 1967–69, export shipments of MSS products by U.S. exporters reporting in the BDC survey grew faster than total U.S. exports of MSS products. Export shipments by U.S. exporters reporting in the BDC survey grew 27 percent as compared with a 23 percent increase for total U.S. shipments of MSS products. Moreover, export ship-

Shipments by Respondents in BDC Survey 1967-69

(Percent of Total)

Type of shipment	1967	1968	1969	Percent change from 1967–69
Total shipments	100.0	100.0	100.0	20
Domestic	91.2	91.1	90.7	19.5
Export	8.8	8.9	9.3	26.9

ments of respondents in the BDC survey actually increased more from 1967–69 than did domestic shipments. Export shipments increased 27 percent while domestic shipments increased 19.5 percent.

U.S. Exports by Type of Measurement, 1967-69

(Percent)

Type of measurement	1967	1968	1969
Total percent	100.0	100.0	100.0
a. Products designed and manufactured in U.S. customary units and engineering standards	90.4	91.6	89.6
b. Products designed and manufactured in U.S. customary units and engineering standards but described in metric units	9.0	7.9	10.0
c. Products designed and manufactured in U.S. customary units and engineering standards but substantially modified or changed to include metric parts, components, or subassemblies	0.3	0.3	0.3
d. Products designed and manufactured in metric units and engineering standards	0.3	0.2	0.1

During the period 1967–69, about 90 percent of total MSS exports were designed and manufactured in U.S. customary units and standards. About 8 to 10 percent of total exports are designed and manufactured in U.S. customary units and engineering standards, but are also described in metric units in labels, packages, engineering drawings, or catalogs. Less than 1 percent of exports are designed in metric units and engineering standards. Less than one percent of exports are products designed and manufactured in U.S. customary units and engineering standards but substantially modified or changed to include parts, components, or subassemblies in metric units.

About two-thirds of the export shipments by respondents in the BDC survey went to foreign customers other than foreign affiliates. The remainder, or about 35 percent of the shipments, goes to foreign affiliates. Of the shipments to foreign affiliates, about 60 percent are shipped for resale. The remainder are shipped for further processing and assembly.

Despite the fact that export shipments to foreign affiliates increased nearly 30 percent from 1967–69, the proportion of these shipments to total shipments remained relatively constant. In other words, exports of MSS products to both foreign affiliates and other foreign customers grew at nearly the same rate.

Export Shipments by Type of Customer

(Percent)

Type of customer	1967	1968	1969
Total export shipments	100.0	100.0	100.0
a. To foreign affiliates	34.3	31.7	34.9
b. To other foreign customers	65.7	68.3	65.1
Export shipments to foreign affiliates	100.0	100.0	100.0
a. For further processing or assembly	37.3	39.3	38.0
b. For re-sale without further manufacture	61.2	59.2	60.6
c. Other	1.5	1.5	1.4

In the BDC survey, U.S. exporters were asked if they designed and manufactured products in both U.S. customary and metric units and engineering standards. About 17 percent stated that they manufactured in both measurement systems. Since the level of export shipments reported as designed and manufactured in metric units and engineering standards is so small, it is believed that respondents included in their answer exports which involved only "soft" changes. These are products designed and manufactured in U.S. customary units and engineering standards, but described in metric terms in engineering drawings, labels, packages, or catalogues. Respondents who had indicated that they did not produce in metric measurements, were asked if they found it a hindrance in exporting. About 17 percent reported that it did hinder their exporting, particularly to Sweden, West Germany, France, and Japan. These were the most mentioned countries.

Only 13 percent of the respondents in the BDC survey stated that they actively solicit export orders specifying that products be produced in metric units or engineering standards. A similar percent of respondents indicated that, in the last 3 years, they had lost export orders because they could not meet metric specifications.

Finally, when U.S. exporters were asked whether the United Kingdom's conversion to the metric system would adversely affect export sales, 17 percent of the respondents answered affirmatively. About 58 percent stated that it would not, and 25 percent indicated they did not know.

Measurement Usage by U.S. Importers: Imports of U.S. importers in the BDC survey gained 54 percent from 1967–69. This is slightly higher than the percentage increase of total U.S. imports of MSS products for the same time period. About 66 percent of imports into the U.S. are resold in the domestic market without further manufacturing. The remaining 34 percent are brought in for further processing. Those MSS products which are imported for further processing are growing at a faster rate than are imports for resale. The former grew 70 percent from 1967–69, while the latter increased 55 percent.

A substantial portion of U.S. imports of MSS products comes from sources other than foreign affiliates. In 1967–69, imports from foreign affiliates accounted for 24 to 29 percent of total trade as compared to 71 to 75 percent originating from other foreign sources. Interestingly, however, is the fact that imports from U.S. foreign affiliates grew 82 percent from 1967–69, compared with a 45 percent increase in imports from other foreign sources.

The BDC survey also showed that most imports from foreign affiliates are brought into the U.S. for further processing. In the period 1967–69, imports from foreign affiliates for further processing accounted for about 60 percent of total imports from foreign affiliates, compared with 40 percent entering for resale. Imports from foreign affiliates for further processing accounted for more than half of total imports, and they are growing at a faster rate than are imports for resale. From 1967–69, imports from foreign affiliates for further processing grew 85 percent as compared with an increase of 79 percent for products to be resold without further manufacturing.

U.S. Imports by Respondents in BDC Survey, 1967-69

	1967	1968	1969	Percent change from 1967–69
	(Percent)			
Total imports	100.0	100.0	100.0	54.3
a. From U.S. foreign affiliates	24.4	23.7	28.8	82.2
b. From other foreign sources	75.6	76.3	71.2	45.3
Imports from U.S. foreign affiliates	100.0	100.0	100.0	82.2
a. For further processing	59.5	55.6	60.6	85.4
b. For resale	39.7	43.3	38.9	78.6
c. Other	0.8	1.1	0.5	....
Imports from other foreign sources	100.0	100.0	100.0	45.3
a. For further processing	16.4	17.7	17.2	52.2
b. For resale	74.3	73.7	77.2	51.0
c. Other	9.3	8.6	5.7	....

About 53 percent of imports of respondents in the BDC survey were metric products. Approximately 19 percent of the total survey imports are products designed and manufactured in U.S. customary units and measurement standards. About 19 percent of survey imports are products designed and manufactured in metric units and enginering standards, but described in U.S. customary units and engineering standards. Only 9.0 percent of the imports are products designed and manufactured in metric units and engineering standards, but are substantially modified or changed to include parts and components designed and manufactured in U.S. customary units and engineering standards.

U.S. Imports of Respondents by Type of Measurement System 1967-69

Type of measurement system	1967	1968	1969	Percent change from 1967–69
	(Percent)			
Total imports	100.0	100.0	100.0	54.3
a. Imports designed and manufactured in U.S. customary units and engineering standards	19.3	18.9	19.2	52.6
b. Imports designed and manufactured in metric units and engineering standards but described in U.S. customary units and engineering standards	18.4	17.3	19.2	61.1
c. Imports designed and manufactured in metric units and engineering standards but substantially modified to include parts and components in U.S. customary units and engineering standards	9.1	8.7	9.0	53.1
d. Imports designed and manufactured in metric units and engineering standards	53.1	55.1	52.6	52.8

IV. POTENTIAL EFFECTS OF U.S. CONVERSION TO THE METRIC SYSTEM ON SELECTED INDUSTRIES

This chapter consists of a series of industry impact statements evaluating the potential effect of U.S. conversion to the metric system on selected U.S. industries. The criteria for selecting the industries were: (1) the U.S. has an extraordinary foreign trade surplus in the industry's products; or (2) the potential impact of U.S. conversion may have adverse effects on the industry. The reason for selecting industries with an extraordinary foreign trade surplus was to determine whether or not metrication would reduce or enhance the surplus.

The industries selected were: (1) machine tool industry, (2) steel industry, (3) air conditioning and refrigeration industry, (4) pumps and compressors, (5) industrial fasteners, (6) electronic computing equipment, and (7) construction machinery and equipment. Each impact statement includes a summary of the potential metrication impact, a description of the foreign trade patterns, and a discussion of the importance of the measurement factor.

THE MACHINE TOOL INDUSTRY[1]

A shift from the U.S. customary measurement system to the metric system would have little or no effect upon U.S. foreign trade in machine tools. A survey conducted by BDC of exporters and importers indicates clearly that price, technology, reliability and reputation of product, local and third country competition, shipping costs, tariff duties—all are factors that transcend in importance a change from our U.S. customary measurement system to the metric system.

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[1] Standard Industrial Classifications 3541 and 3542.

Indications are that the U.S. foreign trade surplus for machine tools will deteriorate in the seventies. U.S. exports will probably not grow appreciably because: (a) U.S. prices will continue higher than prices of foreign producers; and (b) U.S. producers are increasingly supplying foreign markets by manufacturing abroad. U.S. imports of foreign-made machine tools will probably grow, depending on the growth of the domestic economy. Foreign producers have important price advantages and are rapidly acquiring U.S. technology. U.S. conversion to the metric system will have only a marginal effect on U.S. foreign trade.

Foreign Trade Patterns: Domestic demand for machine tools more than doubled from 1960–69, rising from about $603 million to $1.5 billion. In 1967, demand peaked at $1.8 billion and then steadily declined to $1.5 billion. The growth in shipments reflected a massive investment in industrial modernization and expansion, encouraged by the investment tax credit program and revised depreciation allowances. Other factors stimulating shipments were military procurement for Southeast Asia, cuts in corporate income taxes, rising labor costs and a labor shortage. Since 1969, the investment tax credit program has been repealed, military procurement has decreased, interest rates have risen. All of these factors have acted to depress the machine tool industry. New orders are currently running at pre-1960 levels.

The unprecedented domestic demand for machine tools during the sixties had a significant effect on U.S. foreign trade in machine tools. It probably restricted growth in machine tool exports and certainly encouraged imports of machine tools, particularly during periods when foreign machine tool producers could offer faster deliveries than domestic producers. U.S. exports of machine tools increased from $271 million in 1965 to $322 million in 1969, as compared to an increase in imports of from $69 million to $183 million for the same period. The 18 percent increase in machine tool exports from 1965–69, which represents mostly price change rather than any real significant increase in actual shipments, was small compared with the 69 percent increase in exports for all manufacturing. In 1969, the U.S. had a trade surplus in machine tools of about $138 million. Exports amounted to about 20 percent of total machine tool product shipments and imports about 12 percent of domestic consumption of machine tools. Currently, exports of machine tools are up quite sharply owing to the fast growing markets of West Germany, Japan, and other countries. Imports have declined.

Parts for metalcutting machines was the largest machine tool export category in 1969, amounting to $48.6 million or about 15 percent of total machine tool shipments. This was followed by exports of grinding and polishing machines and metal forming machine tools. Export shipments in these two categories of equipment were in excess of $40.0 million each in 1969. Exports of machine tools for home workshops, laboratories, and garages have steadily declined, dropping from $44.6 million in 1965 to $20.5 million in 1969.

From 1965–69, imports of machine tools climbed 165 percent, moving from $69.0 million to $183.2 million. The largest increase occurred in 1966 when imports doubled from the previous year, reflecting the high level of economic activity in the U.S. The largest single machine tool import was lathes, which amounted to $38 million in 1969. Milling machines showed the largest growth, rising over 300 percent and totalling $26.3 million in 1969, down slightly from $31 million in each of the 2 previous years.

In 1969, the U.S. had a favorable trade balance in machine tools with most countries, except for the Common Market countries, which had a deficit of $37.1 million. The largest surplus was with Canada, totalling $62.1 million, which was about 45 percent of the total surplus. Trade in machine tools with Japan increased quite significantly from 1965–69. Exports doubled, from $25.7 million to $54.0 million. However, imports also rose and our machine tool trade balance fluctuated between a $5.5 million deficit in 1966 and a $34.5 million surplus in 1969. (See table, p. 47.)

Measurement Factor: Technical superiority, reputation, reliability, and high quality of U.S. machine tools are the chief selling points used in marketing abroad. Insofar as price is concerned, the U.S. is not competitive in most foreign markets. The price of foreign built machine tools is from 25 percent to 40 percent less than the price of comparable U.S. built machines.

Since they are unable to compete on price, most U.S. producers are moving from the production for export of low-price, general purpose machine tools to special, custom built and technically advanced machines. Performance and quality are emphasized. However, there is a question as to how long the U.S. will continue to maintain a technological edge since foreign producers are rapidly equaling U.S. technology.

Because of competitive uncertainty, many U.S. machine tool firms have acquired foreign subsidiaries to supply local markets. Many firms have invested in new manufacturing operations, acquired existing firms, or entered into licensing arrangements. These steps provide the benefit of lower cost, both in labor and transportation, and eliminate tariff duties. The consequences of these developments with respect to future U.S. exports of machine tools are not encouraging.

The measurement system, either metric or U.S. customary, used in building machine tools is a marginal factor in foreign trade. Its effect on foreign trade ranks low in relation to price, technology, reliability, local competition, shipping costs, tariff duties, and many other factors. Respondents to the BDC survey indicated that the five most important factors promoting U.S. exports of machine tools were: (1) superior technology; (2) reputation and reliability of product; (3) higher quality products; (4) growing foreign markets; and (5) a vigorous company export promotion program. The five most important deterring factors were: (1) prices were not competitive; (2) strong local and third country competition; (3) high shipping costs; (4) high tariff duties; and (5) no technological advantage of product. (See table, p. 50.)

Assuming the U.S. maintained its current measurement system, half of the survey respondents when asked to estimate exports for 1975 stated that there would be no change from 1970 trade levels, 30 percent anticipated an increase in exports, and 20 percent anticipated a decline.

By contrast, when these same respondents were asked to estimate their exports for 1975 assuming the U.S. had adopted the metric system in 1970, over 64 percent for them anticipated no change. About 27 percent estimated an increase, and 9 percent expected a decline in exports. The proportion anticipating no change was higher and the proportion estimating a decline is much lower than if the U.S. did not convert to the metric system. Interestingly, every respondent anticipating a decline in exports if the U.S. maintained its current measurement system indicated a moderate improvement in exports had the U.S. converted to the metric system.

Most U.S. machine tool producers design and manufacture in U.S. customary units and standards. About 20 percent of the producers surveyed design and manufacture at least part of their exports in both customary and metric units. Of those not producing in the metric system, only one producer found this to be a hindrance in exporting.

Few machine tool manufacturers surveyed actively solicit export orders for machine tools which specify they be produced in metric units and standards.

Respondents' Estimated Percentage Change in Export Shipments in 1975 as Compared with 1970 Using Two Assumptions*

(Number)

	Estimated percentage change						
	−25.1 and over	−10.1 to −25.0	−0.1 to −10.0	No change	0.1 to 10.0	10.1 to 25.0	25.1 and over
Assumption 3A............	4	2	1	12	1	1	2
Assumption 3B............	0	2	0	14	1	2	3

*Assumptions:

(1) The 8 percent annual growth rate in Free World international trade for the last six years will continue for the period 1970–75.

(2) United Kingdom, Canada, Australia, and New Zealand have substantially completed conversion to the metric measurement system by 1970.

(3) Estimate based on current 1970 dollars.

(A) The United States and your company will continue to use the current customary measurement units and/or engineering standards (this assumes that among all major industrialized countries only the U.S. will not have converted).

(B) The United States and your company had converted to the metric measurement units and/or engineering standards by 1970. (This assumes there would be no changes in the cost of producing the subject product in metric units and/or engineering standards.)

U.S. Foreign Trade Summary for Machine Tools, 1965-69

(In Millions of Dollars)

Products and countries	U.S. exports					U.S. imports					Trade balance				
	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969
A. Machine tools, total	271.3	264.7	296.5	287.9	321.5	69.0	137.4	203.6	191.6	183.2	202.3	127.3	92.9	96.3	138.3
1. Metal cutting type	182.1	169.4	199.5	178.3	201.0	59.0	121.2	174.7	166.4	154.0	123.1	48.2	24.8	11.9	47.0
2. Metal forming type	89.2	95.3	97.0	109.6	120.5	10.0	16.2	28.9	25.2	29.2	79.2	79.1	68.1	84.4	91.3
B. Countries, total	271.3	264.7	296.5	287.9	321.5	69.0	137.4	203.6	191.6	183.2	202.3	127.3	92.9	96.3	138.3
1. Canada	68.2	74.0	66.8	55.2	74.4	4.5	7.2	10.9	11.0	12.3	63.7	66.8	55.9	44.2	62.1
2. European Economic Community	51.6	52.1	52.4	45.6	47.9	32.5	61.8	93.9	90.6	85.0	19.1	(9.7)	(41.5)	(45.0)	(37.1)
3. United Kingdom	31.8	35.2	48.1	28.2	30.8	10.0	21.3	37.6	32.6	29.5	21.8	13.9	10.5	(4.4)	1.3
4. Japan	25.7	13.1	24.0	55.0	54.6	5.4	18.8	28.1	21.0	20.1	20.3	(5.7)	(4.1)	34.0	34.5
5. All others	94.0	90.3	105.2	103.9	113.8	16.6	28.3	33.1	36.4	36.3	77.4	62.0	72.1	67.5	77.5

Factors Affecting U.S. Export of Machine Tools

Promoting	Percent of total rankings
1. Superior technology of product	27.7
2. Reputation and reliability of product	25.2
3. Higher quality product	14.3
4. Growing foreign markets	6.7
5. Lack of local and third country competition	5.2
6. Products are designed and manufactured in U.S. customary units and engineering standards	1.7
7. Products are designed and manufactured in metric units and engineering standards	0.6
8. All others	18.6
Total	100.0
Deterring	
1. Prices are not competitive	33.1
2. Strong local and third country competition	15.7
3. High tariff duties	13.0
4. High shipping costs	12.0
5. No technological advantage of product	7.5
6. Products are designed and manufactured in U.S. customary units and engineering standards	1.5
7. Products are designed and manufactured in metric units and engineering standards	.....
8. All others	17.2
Total	100.0

Only one manufacturer reported that, in the last 3 years, it turned down an export order because it could not meet metric specifications.

About 50 percent of machine tool export shipments reported were described in dual dimensions. These are machine tools designed and manufactured in U.S. customary units and standards but described in labels, packages, engineering drawings, and catalogues in metric units. About 40 percent of the reported exports of machine tools were manufactured and described only in the U.S. customary system. The remaining 10 percent of exports included machine tools either modified to include metric parts or components or manufactured entirely in metric units or standards.

Imports of machine tools are a function of price, delivery, and most important, the level of economic activity in the U.S. Most imports into the U.S. have been designed and manufactured in the metric system, but are modified to function in the U.S. customary system. All scales, verniers, and measuring systems are graduated in the inch system. This modification is an additional cost to foreign producers which influence price to U.S. importers. However, the additional cost is not so great as to make prices of foreign-built machinery noncompetitive with U.S.-built equipment. Foreign producers still have a favorable price differential over comparable U.S. equipment.

THE U.S. STEEL INDUSTRY

The consensus within the steel industry is that U.S. conversion to the metric system would not affect U.S. foreign trade in steel mill products. The industry is easily able to convert machinery and equipment to make steel products in metric sizes.

The basic "gauge system" used in the steel industry has its origins in Europe and is standard throughout the world. Sheet steel, which is 20 or 22 gauge, is rolled to the same thickness in both metric and nonmetric countries. The only dimensional problem, which is minor, involves the width in which steel is produced. However, since the width of most steel products is trimmed to size, it is an easy operation to trim to metric or inch units.

Further, the industry uses the "order book" production scheduling practice, a system where the steel producer groups a number of individual orders for the same product and makes one large production run. This enables the producer to make steel to nearly any standard or measurement unit. Similarly, it is the practice of domestic consumers when steel is purchased abroad to order by specification. Foreign producers will deliver the product in any dimension that the consumer orders.

Price is the most important factor affecting the foreign trade of steel products. Inasmuch as U.S. prices are not competitive with foreign producers, imports of steel products into the U.S. have risen sharply. Consequently, were the U.S. to convert to the metric system, the U.S. trade deficit for steel products would not change.

Foreign Trade Patterns: In the last decade, foreign steel products significantly penetrated the U.S. market, and the U.S. trade balance for steel products moved from a surplus to a large deficit. For products covered by this report,[2] the U.S. had a trade deficit in 1969 of $837 million, second largest to the record of $1.3 billion in 1968. From 1965–69, imports of steel products grew 61 percent, climbing from $868 million to $1.4 billion. Imports in 1969 were down about $200 million from the previous year. Export gains of steel products were moderate, reaching $540 million in 1969, up from $388 million in 1965. In 1969, imports of steel products as a percent of apparent consumption amounted to about 14 percent. Exports were about 5 percent of total shipments.

The growth in imports was stimulated by the high rate of economic activity in the U.S., higher domestic prices for steel, and labor strikes. The installation of large scale and ultramodern machinery and equipment by European and Japanese producers, coupled with lower labor costs, enabled them to underprice domestic producers and increase their share of the U.S. market.

Imports grew for nearly all product classes covered in this report. When imports first began to flow significantly, they were confined mainly to products (such as standard structural shapes, reinforcing bars, and common grades of wire rods and wire products) which could be produced with old equipment and simple technology. However, late in the sixties, more sophisticated steel products such as sheet were imported which require complex processing equipment and advanced technology. From 1965–69, the largest import percentage gains were in steel pipe and tubes which increased 90 percent, advancing from $133 million to $254 million. Hot rolled sheet and strip increased 70 percent. However, the largest imports have consistently been in hot rolled bars and bar shapes, plate, structural shapes and piling. In 1969, imports of these products totaled $450 million.

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[2] SIC–33123, 33124, 33126, 33127, 33128, 33176, 33167, 33168.

Besides price, the BDC survey results indicate that other major factors which are barriers to U.S. export of steel products are: (1) local and third country competition; (2) high shipping costs; (3) high tariff duties; (4) nontariff barriers; and (5) no technological advantage of product.

When respondents were asked to estimate 1975 steel exports, most said there would be no change from 1970 trade levels. Many indicated a reluctance to estimate because the estimate must be based upon the worldwide price of steel products at that time. Since it was difficult to project prices, many

Factors Affecting U.S. Exports of Steel Products

Promoting	Percent of total rankings
1. Reputation and reliability of product	21.9
2. Higher quality product	20.7
3. Lack of local and third country competition	15.5
4. Growing foreign market	7.7
5. Products are designed and manufactured in U.S. customary units and engineering standards	.....
6. Products are designed and manufactured in metric units and engineering standards	.....
7. All others	34.2
Total	100.0
Deterring	
1. Prices are not competitive	28.7
2. Strong local and third country competition	18.9
3. High shipping costs	15.1
4. High tariff duties	13.0
5. No technological advantage of product	7.6
6. Products are designed and manufactured in U.S. customary units and engineering standards	.....
7. Products are designed and manufactured in metric units and engineering standards	.....
8. All others	16.7
Total	100.0

respondents did not estimate 1975 export levels. It should be noted, however, that many respondents who did not estimate 1975 exports stated that metrication was not an important factor affecting trade.

When respondents were asked if the United Kingdom's conversion to the metric system would affect steel export trade, only one said yes. Thirteen respondents answered no, and five said they did not know.

Respondents who import steel products stated that foreign countries are willing to supply steel in the U.S. customary system at prices very favorable to U.S. prices. Several indicated that if the U.S. converted to the metric system, improved relations with foreign suppliers would result, but not to the extent that it would influence their buying more than they are now.

The U.S. runs a large trade deficit for all steel products with the EEC countries and with Japan. In 1965, the trade deficit with these countries was $673 million, and in 1969, it was in excess of $1.0 billion. The deficit had declined in 1969 to about $200 million. Realizing this situation and the probability that the U.S. might legislate import controls, these countries agreed to voluntarily restrain their exports to the U.S. during the years 1969–71. (See table, p. 52.)

Measurement Factor: Price and availability are the two most important factors affecting U.S. foreign trade in steel. In fact, price is so important that it far outweighs all other factors. Steel, a relatively standardized product moving freely in international trade, competes almost entirely on price rather than on product differentiation, service, or some other factor. During 1968, the peak year for steel imports, finished steel came into the U.S. at a 15 to 20 percent price differential. This is too much for U.S. producers to compete against. Generally, industry considers a price difference of 10 percent or more to be sufficient to encourage domestic consumers to buy off shore.

It is a practice in international trade for foreign prices of steel for most countries including the U.S. to be less than the domestic price. In Japan, published prices of domestic steel is about 10 perecnt more than that sold by the Japanese in foreign markets. The differential may be smaller for large consumers who negotiate their prices with Japanese steel producers. A similar situation exists for European produced steel. (See table, p. 52.)

THE AIR CONDITIONING AND REFRIGERATION INDUSTRY

Evidence adduced from BDC's survey indicates that U.S. conversion to the metric system would have little or no effect on the trade surplus in air conditioning and refrigeration equipment. Both exports and imports might increase as a result of such a step, but would probably offset one another.

The U.S. trade surplus for air conditioning and refrigeration equipment will perhaps grow moderately in future years. World-wide demand for this type of equipment has been very strong and will continue strong as standards of living rise, particularly in the developing countries. U.S. share of the worldwide market will shrink as new producers enter the market, but the market's growth will be such that U.S. producers should continue to experience good sales.

U.S. Foreign Trade Summary for Steel Products[1], 1965-69

(In Millions of Dollars)

Products and countries	U.S. exports					U.S. imports					Trade balance				
	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969
A. Steel products, total [1]	387.2	327.4	326.9	337.7	540.1	867.6	918.1	1,014.6	1,595.6	1,376.9	(480.4)	(590.7)	(687.7)	(1,257.9)	(836.8)
1. Hot-rolled sheet and strip	129.5	10[illegible].4	112.7	113.4	182.6	247.1	272.4	305.6	470.7	376.9	(117.6)	(172.0)	(193.2)	(357.3)	(194.3)
2. Hot-rolled bars, plates, and structural shapes	95.7	64.2	56.2	57.5	117.4	314.7	326.2	349.4	502.1	449.5	(219.0)	(262.0)	(293.2)	(444.6)	(332.1)
3. Steel pipe and tube	93.5	109.4	101.6	108.2	122.0	133.0	153.1	162.1	244.4	254.2	(39.5)	(43.7)	(60.5)	(136.2)	(132.2)
4. Cold rolled steel sheets and strips	59.9	46.5	46.9	46.7	103.0	166.5	157.7	186.5	362.3	272.9	(106.6)	(111.2)	(139.6)	(315.6)	(169.9)
5. Cold finished steel bars and shapes	8.6	6.9	9.5	11.9	15.1	6.3	8.7	10.7	16.1	23.4	2.3	(1.8)	(1.2)	(4.2)	(8.3)
B. Countries, total	387.2	327.4	326.9	337.7	540.1	867.6	918.1	1,014.6	1,595.6	1,376.9	(480.4)	(590.7)	(687.7)	(1,257.9)	(836.8)
1. Canada	126.9	107.0	98.4	94.5	155.5	55.4	64.4	60.6	136.9	94.2	71.5	42.6	37.8	(42.4)	61.3
2. European Economic Community	22.7	22.3	19.5	18.7	74.0	315.9	285.0	362.3	559.9	458.8	(293.2)	(262.7)	(342.8)	(541.2)	(384.8)
3. United Kingdom	11.5	11.5	12.3	7.7	11.6	69.1	72.7	78.3	107.8	84.4	(57.6)	(61.2)	(66.0)	(100.1)	(72.8)
4. Japan	2.3	2.3	2.7	2.6	7.8	382.4	428.8	436.5	696.8	645.1	(380.1)	(426.5)	(433.8)	(694.2)	(637.3)
5. All others	223.8	184.3	194.0	214.2	291.2	44.8	67.2	76.9	94.2	94.4	179.0	117.1	117.1	120.0	196.8

[1] Includes Standard Industrial Classifications: 33123, 33124, 33126, 33127, 33128, 33176, 33167, and 33168.

The BDC survey shows that the measurement system used in the manufacture of air conditioning and refrigeration equipment is a minor factor affecting foreign trade in this product line. The quality, reputation, and reliability of the product, price, technology, and maintenance and service all rank as more important than the measurement system.

Foreign Trade Patterns: The U.S. has always maintained a large trade surplus in air conditioning and refrigeration equipment. Demand for this equipment remains strong worldwide. In 1969, with U.S. exports of $365 million and imports only $24 million, the trade surplus was $341 million, up from about $200 million in 1965.

From 1965–69, exports of air conditioning and refrigeration equipment grew 64 percent, slightly greater than the growth in domestic product shipments. Of the $365 million of equipment exported in 1969, over 45 percent was air conditioners, both room and unitary, and heat transfer equipment. Soda fountain and beer dispensing equipment was the only other sizeable export category, amounting to $119.4 million in 1969, up from $50.6 in 1965, a 100 percent increase. Exports of commercial refrigeration equipment such as display cases and cabinets amounted to about $17 million in 1965.

Imports of air conditioning and refrigeration equipment, always small in relation to exports, were equal to 6.5 percent of total exports of this product category in 1969. Imports of air conditioning and refrigeration equipment, though small, grew spectacularly from 1965–69, increasing 269 percent. In 1969, the bulk of imports consisted of room air conditioners assembled in Canada mostly from parts manufactured in the U.S., and small hermetic refrigeration compressors from Italy and Denmark. (See table, p. 55.)

Measurement Factor: Four factors account for the substantial U.S. air conditioning and refrigeration equipment trade surplus: high quality products, superior technology, rapidly growing foreign markets, and aggressive U.S. marketing.

Historically, the air conditioning and refrigeration industry has had a technological advantage over the rest of the world. As a result, the industry has been superior to foreign competition, not only in design of equipment, but also in manufacturing processes. The technological gap between U.S. and foreign producers is, however, rapidly closing. Foreign producers have adopted much of U.S. technology, and have abandoned many inefficient production methods. In the past, foreign producers tended to be craftsmen, producing custom equipment instead of using large scale production techniques.

Also contributing to the growth in the U.S. trade surplus in this commodity area has been the increasing worldwide demand for air conditioning and refrigeration equipment. While there are no statistical data on worldwide consumption of this equipment, it appears to be growing at an extraordinary rate. Although the U.S. share of this worldwide market is shrinking because of increased local production, worldwide demand is growing at such a rate that the U.S. should continue to experience a substantial growth in shipments. To insure their share in these markets, many U.S. firms have either acquired or begun manufacturing operations abroad or have entered license or joint venture arrangements. In Canada, for example, except for one producer, all are

U.S. owned or affiliated. The major benefit derived from these steps is the designing of products to meet local demand, but it also has the potential effect of reducing or slowing U.S. exports.

Results of the BDC survey show that the U.S. customary measurement system used to design and manufacture air condition and refrigeration equipment has little effect in either promoting or deterring U.S. exports. This factor ranks low among factors promoting exports as: (1) quality, reputation, and reliability of the products, (2) technology, (3) prices, and (4) maintenance and servicing.

Factors deterring U.S. exports of air conditioning and refrigeration equipment all relate to exporting costs, such as shipping costs and tariff duties. Other deterrents cited are: U.S. prices are not competitive and in some countries there is strong local and third country competition. (See table, p. 56.)

In the opinion of survey respondents, had the U.S. converted to the metric system in 1970, 1975 exports of air conditioning and refrigeration equipment would probably be higher than if we maintained the current system. When asked to estimate 1975 exports on the assumption that the U.S. maintained its current measurement system, most respondents indicated no change from 1970 trade levels. Of 13 respondents, 6 estimated no change, 3 an increase and 4, a decrease.

Respondents' Estimated Percentage Change in Export Shipments in 1975 as Compared With 1970 Using Two Assumptions*

(Number of respondents)

	Estimated percentage change						
	−50.0 and over	−25.1 to −50.0	−0.1 to −25.0	No change	0.1 to 25.0	25.1 to 50.0	50.1 and over
Assumption 3A	0	0	4	6	1	0	2
Assumption 3B	0	0	0	5	5	0	3

*Assumptions:

(1) The 8 percent annual growth rate in Free World international trade for the last six years will continue for the period 1970–75.

(2) United Kingdom, Canada, Australia, and New Zealand have substantially completed conversion to the metric measurement system by 1970.

(3) Estimate based on current 1970 dollars.

(A) The United States and your company will continue to use the current customary measurement units and/or engineering standards (this assumes that among all major industrialized countries only the U.S. will not have converted).

(B) The United States and your company had converted to the metric measurement units and/or engineering standards by 1970. (This assumes there would be no changes in the cost of producing the subject product in metric units and/or engineering standards.)

U.S. Foreign Trade Summary for Air-Conditioning and Refrigeration Equipment, 1965–69

(In Millions of Dollars)

Products and countries	U.S. exports					U.S. imports					Trade balance				
	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969
A. Air conditioning and refrigeration Equip., total	214.2	249.3	280.7	321.7	364.6	6.4	7.6	7.7	14.2	23.6	207.8	241.7	273.0	307.5	341.0
1. Air conditioners, room and unitary and heat transfer Equip.	104.5	120.2	138.9	163.0	175.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2. Commercial refrigeration Equip.	16.3	17.3	16.3	16.7	17.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3. Other refrigeration and air conditioning Equip.	59.6	74.4	84.0	96.1	119.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4. Compressors and compressor units	33.4	21.8	25.0	29.9	34.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5. Condensing units	15.2	15.6	16.5	16.0	17.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. Countries, total	214.2	249.3	280.7	321.7	364.6	6.4	7.6	7.7	14.2	23.6	207.8	241.7	273.0	307.5	341.0
1. Canada	42.3	48.5	61.2	78.4	88.8	4.0	4.4	4.6	8.1	14.7	38.3	44.1	56.6	70.3	74.1
2. European Economic Community	31.4	33.3	34.6	41.1	47.2	0.1	0.4	0.6	3.1	4.7	31.3	32.9	34.0	38.0	42.5
3. United Kingdom	6.1	7.7	9.5	9.4	8.9	0.1	0.3	0.2	0.9	1.1	6.0	7.4	9.3	8.5	7.8
4. Japan	8.6	11.2	21.2	28.7	22.5	0.2	0.2	0.2	0.5	1.2	8.4	11.0	21.0	28.2	21.3
5. All others	125.8	148.6	154.2	164.1	197.2	2.0	2.3	2.1	1.6	1.9	123.8	146.3	152.1	162.5	195.3

However, when asked to estimate 1975 exports of air conditioning and refrigeration equipment, assuming the U.S. had converted to the metric system, none of the respondents anticipated a decline from the 1970 trade level. Eight respondents estimated an increase, and five indicated no change.

When the respondents' estimates were related to their current trade levels, they reported that their 1975 exports would be 5.2 percent greater if the U.S. converted to the metric system than if the U.S. maintained its current system.

With one exception, all respondents to the BDC survey manufactured air conditioning and refrigeration equipment only in U.S. customary measurement units and engineering standards. Two respondents thought that their export trade in air conditioning and refrigeration equipment was adversely affected

Factors Promoting U.S. Exports of Air Conditioning and Refrigeration Equipment

	Percent of total rankings
1. High quality product	20.4
2. Reputation and reliability of products	16.8
3. Superior technology of products	12.9
4. Prices are competitive	10.3
5. Product maintenance and servicing available	9.3
6. Products are designed and manufactured in U.S. customary units and engineering standards	2.0
7. Products are designed and manufactured in metric units and engineering standards	.....
8. All others	28.3
Total	100.0

Factors Deterring U.S. Exports of Air Conditioning and Refrigeration Equipment

	Percent of total rankings
1. High shipping costs	20.4
2. Prices are not competitive	20.2
3. Strong local and third country competition	20.0
4. High tariff duties	13.4
5. Products are designed and manufactured in U.S. customary units and engineering standards	3.3
6. Products are designed and manufactured in metric units and engineering standards	.....
7. All others	22.7
Total	100.0

since they did not manufacture equipment in metric units and engineering standards.

None of the survey respondents solicited export orders specifying they be manufactured in metric units and engineering standards. No respondent indicated that an export order had been refused, in the last 3 years, because the specifications were in metric units and engineering standards.

Finally, when the survey respondents were asked if a United Kingdom conversion to the metric system would adversely affect their air conditioning and refrigeration export sales, four answered affirmatively and nine that such a move would have no effect. One respondent predicted that a change to the metric system by the United Kingdom would gradually influence acceptance of the metric system in other countries presently using British units.

THE INDUSTRIAL PUMP AND COMPRESSOR INDUSTRY[1]

In 1969 the U.S. ran a trade surplus of $315 million in industrial pumps and compressors, $100 million and 46 percent larger than the 1965 surplus. Exports in 1969 amounted to $367 million, about 15 percent of total domestic shipments of pumps and compressors. While U.S. imports of this commodity are relatively small, totaling $53 million in 1969, they have been growing at an annual rate of about 17.5 percent.

U.S.-exported pumps and compressors are generally highly engineered, nonstandard, and with large capacities compared with our imports of standardized equipment. In recent years demand has been strong for pumps and compressors in developing countries in connection with the construction of petroleum and gas field transmission lines, highways, and industrial and commercial facilities and operation.

Conversion to the metric system would have a beneficial effect on U.S. exports of pumps and compressors. BDC survey respondents estimate that exports would decline slightly by 1975 if the U.S. maintained its current measurement system, and would probably increase nearly 20 percent by 1975 if the U.S. converted to the metric system by 1970.

Conversion to the metric system may accelerate imports of pumps and compressors, particularly standard-type pumps and compressors where price is the chief determinant. However, because the U.S. supplies foreign markets with large capacity, high value equipment, the overall effect would be an increase in exports which would more than offset any increase that may occur in imports.

Foreign Trade Patterns: The U.S. industrial pump and compressor industry is a major international supplier of equipment whose exports in 1969 were $367 million, up 51.2 percent from $243 million in 1965.

The largest single category of export shipments, parts and attachments for pumps and compressors, in 1969 amounted to $156 million or 42 percent of total exports in this category. Exports of parts and attachments were also the fastest growing trade category of pumps and compressors, advancing from $85 million to $113 million, or 85 percent from 1965–69. Parts and attachments are used not only to replace parts of existing equipment, but are also used by U.S. subsidiaries and affiliates abroad for further assembly.

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[1] Standard Industrial Classification 3561. Does not include measuring and dispensing pumps for gasoline service stations.

The U.S. pump and compressor industry is also an important supplier of industrial pumps and air and gas compressors. Exports in each of these trade categories exceeded $65 million in 1969.

This country's imports of pumps and compressors are relatively small, totaling $53 million in 1969. Nearly half of these imports were classified in a basket category which included oil burners and appliance pumps, fire engine, laboratory, and sump pumps. About a third of the total imports of pumps and compressors come from Canada. While these imports are relatively small in absolute terms, their growth has been quite spectacular, increasing 90 percent from 1965–69.

The U.S. trade surplus for pumps and compressors amounted to $314.3 million in 1969 which was nearly $100 million larger than in 1965. The U.S. surplus with Canada amounted to $72 million. Aside from Canada, the developing countries are important markets for U.S. pumps and compressors. The Latin American countries bought $86.4 million of pumps and compressors from this nation in 1969 of which about $33 million were parts and attachments. U.S. trade remains relatively small with the EEC countries, United Kingdom, and Japan. (See table, p. 60.)

Measurement Factor: U.S. exports of pumps and compressors are generally highly engineered, nonstandardized equipment. The domestic market requires U.S. producers to make a wide range of pumps and compressors, including a substantial quantity of custom designed. In most foreign markets the demand is generally for smaller types of pumps and compressors so foreign producers concentrate on standard-type equipment. Consequently, the U.S. is able to capture a significant portion of the sophisticated, highly-engineered pump and compressor markets. In recent years demand for this type of equipment has been strong in developing countries in connection with the construction of petroleum and gas field transmission lines, highways, and industrial and commercial facilities and operations.

The U.S. customary measurement system, used to design and manufacture U.S.-made pumps and compressors, is not currently affecting foreign demand for this equipment. The high quality, reputation, and reliability of U.S. equipment, the availability of maintenance and servicing, the superior technology of equipment, and competitive prices, all rank more important in promoting U.S. exports than does the measurement system. (See table, p. 59.)

Where there is a deterrent to U.S. exports, it is usually in standard pumps and compressors because the U.S. is not competitive pricewise with foreign producers. High tariff and shipping costs contribute to this noncompetitiveness, but other factors sometimes cited are strong local and third-country competition and no technological advantage of products. The U.S. customary measurement system used to design and manufacture pumps and compressors ranks much lower than many other factors cited as deterrents to U.S. exports.

Generally, U.S. pumps and compressors are designed to fit or connect with other equipment. For example, if a pump or compressor is to fit other equipment manufactured in metric units and standards, the U.S. manufacturers will design the connectors or couplings on the pump or compressor to fit the metric equipment.

Another factor which lessens the importance or influence of the U.S. customary measurement system is that most U.S. manufacturers have extensive foreign operations and franchise dealerships which are capable of maintaining and servicing U.S. equipment installed abroad. Foreign customers need have little concern about not being able to obtain replacement parts and repairing equipment purchased from U.S. manufacturers.

In the BDC survey none of the manufacturers of pumps and compressors designed and manufactured their output to metric units and engineering standards. Two of the respondents considered this to be a hindrance to selling in foreign markets.

Only one respondent solicited orders requiring that pumps and compressors be designed and manufactured in metric units and standards. Five respondents said they have lost export sales because they did not manufacture in metric units and standards.

When respondents were asked to estimate the percent change in export sales of pumps and compressors from 1970 to 1975 assuming the U.S. maintained its current measurement system, 9 of the 15 respondents reported a decline. Three respondents estimated no change, and two, an increase.

Factors Promoting U.S. Exports of Pumps and Compressors

	Percent of total rankings
1. Reputation and reliability of product	27.3
2. Higher quality product	19.2
3. Product maintenance and servicing is available	15.5
4. Superior technology of product	14.5
5. Products are designed and manufactured in U.S. customary units and engineering standards	1.4
6. Products are designed and manufactured in metric units and engineering standards	1.1
7. All others	21.0
Total	100.0

The respondents were also asked to estimate the percent change in their export sales for 1975 as compared with 1970, assuming the U.S. had converted to the metric system. Using this assumption, the situation improved significantly with none of the respondents estimating a decline. Ten reported no change and three estimated a gain.

When the respondents' estimated percent changes for both assumptions

U.S. Foreign Trade Summary for Industrial Pumps and Compressors, 1965–69

(In Millions of Dollars)

Products and countries	U.S. exports					U.S. imports					Trade balance				
	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969
A. Industrial pumps and compressors, total	242.7	285.9	330.6	334.8	366.9	27.5	35.3	37.1	43.8	52.6	215.2	250.6	293.5	291.0	314.3
B. Countries, total	242.7	285.9	330.6	334.8	366.9	27.5	35.3	37.1	43.8	52.6	215.2	250.6	293.5	291.0	314.3
1. Canada	56.3	65.2	78.9	79.5	88.0	7.8	8.2	7.6	12.7	16.0	48.5	57.0	71.3	66.8	72.0
2. European Economic Community	23.2	31.2	32.7	37.8	47.2	5.8	12.0	12.3	12.4	13.9	17.4	19.2	20.4	25.4	33.3
3. United Kingdom	12.2	10.2	13.7	16.1	16.1	8.3	9.6	9.8	8.8	9.8	3.9	0.6	3.9	7.3	6.3
4. Japan	10.4	11.7	16.8	18.0	17.8	1.9	1.5	2.0	3.7	5.7	8.5	10.2	14.8	14.3	12.1
5. All others	140.6	167.6	188.5	183.4	197.8	3.7	4.0	5.4	6.2	7.2	136.9	163.6	183.1	177.2	190.6

Respondent's Estimated Percentage Change in Export Shipments in 1975 as Compared with 1970 Using Two Assumptions*

(Number)

	Estimated percentage change						
	−30.1 and over	−15.1 to −30.0	−0.1 to −15.0	No change	0.1 to 15.0	15.1 to 30.0	30.1 and over
Assumption 3A	1	4	4	3	0	0	2
Assumption 3B	0	0	0	10	0	2	1

*Assumptions:

(1) The 8 percent annual growth rate in Free World international trade for the last six years will continue for the period 1970–75.

(2) United Kingdom, Canada, Australia, and New Zealand have substantially completed conversion to the metric measurement system by 1970.

(3) Estimate based on current 1970 dollars.

(A) The United States and your company will continue to use the current customary measurement units and/or engineering standards (this assumes that among all major industrialized countries only the U.S. will not have converted).

(B) The United States and your company had converted to the metric measurement units and/or engineering standards by 1970. (This assumes there would be no changes in the cost of producing the subject product in metric units and/or engineering standards.)

were related to their 1969 export sales, they reported that their exports for pumps and compressors would be nearly 20 percent larger in 1975 if the U.S. had converted to the metric system in 1970.

THE INDUSTRIAL FASTENER INDUSTRY[1]

Currently, the U.S. runs a small foreign trade deficit in industrial fasteners. In 1969, the deficit amounted to $31.1 million, up from $14.9 million in 1965. Since imports are rising at a much faster rate than exports, the trade deficit is expected to grow. Shipments from Japan, which supplies half of U.S. fastener imports, nearly doubled from 1965–69, and are accelerating because of the Japanese price advantage in standard fasteners.

Irrespective of U.S. conversion to metric system, the U.S. trade deficit in fasteners will grow during the seventies. If the U.S. does convert to the metric system, will the deficit accelerate or decline? To answer this question, it is important to understand that two different fastener standards are being proposed and the extent of the impact would depend on the metric standards adopted.

The following briefly describes the standards being considered for adoption:

1. The International Organization for Standardization (ISO) is currently

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[1] Standard Industrial Classification 3452.

working on metric standards for fasteners. Complete standards will be available in about 3 years. These standards will be based mostly on metric standards currently in use in European countries which at present are not totally interchangeable. The U.S. conversion to the metric system may mean the adoption of these ISO standards currently being developed.

2. Some industry sources claim that the ISO fastener standards currently being developed will be inferior to the current U.S. standards. Consequently, it is undertaking development of a new "optimum fastener" system which will be in metric units but will incorporate a superior performance capability to the ISO standards. This superior performance will be developed to meet the demands of U.S. manufacturers and will be proposed for adoption to ISO.

If the U.S. adopts the ISO standards for fasteners currently being developed, its trade deficit will grow sharply, because the competitive advantage will swing further to foreign producers who will have had production experience with most of these standards, whereas U.S. producers would have to acquire it. Foreign producers would have a potential cost advantage.

If the new optimum fastener system is adopted, the trade deficit would not be affected as much as if the standards currently being developed by ISO were adopted. All producers, both domestic and foreign, would be on a more equitable footing and would have to acquire the learning experience to produce this type of fastener.

To summarize, the foreign trade deficit for fasteners will continue to grow even if the U.S. does not convert to the metric system. If conversion does take place, the engineering standards adopted will have their effects on the rate of increase in the trade deficit. The trade deficit would, in all probability, be less if the U.S. adopted the new optimum system rather than the ISO standards.

Foreign Trade Patterns: U.S. shipments of industrial fasteners reached an estimated $1.85 billion in 1970 slightly less than half of world production of $4 billion. Actual fastener production is greater in value than shipments since many manufacturers incorporate their fasteners in end items thus eluding Government statistics. Unreported production is estimated to be about 15 percent of annual shipments.

Industrial fasteners include not only standard bolts, nuts, washers, and screws but also sophisticated fastening devices designed for special applications. Shipments of this latter category, growing 12 percent annually in recent years, currently represent 35 percent of the total. Shipments of standard fasteners are growing about 7 percent annually. These trends are expected to continue as the demand for fasteners by consuming industries will require ease of application, improved performance, and reliability.

Exports and imports of fasteners are small in value in relation to total domestic shipments. Only 3.7 percent of total U.S. shipments are sold abroad; imports are equal to about 5.4 percent of U.S. shipments.

From 1965–69, fastener exports grew from $36.6 million to $68.4 million, an increase of 87 percent. In 1969, the average value per ton was $1,117 for exports in contrast to only $400 per ton for imports.

U.S. Foreign Trade Summary for Industrial Fasteners, 1965–69

(In Millions of Dollars)

Products and countries	U.S. exports					U.S. imports					Trade balance				
	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969
A. Industrial fasteners	36.6	49.3	55.8	63.4	68.4	51.5	60.2	71.1	80.0	99.5	(14.9)	(10.9)	(15.3)	(16.6)	(31.1)
B. Countries, total	36.6	49.3	55.8	63.4	68.4	51.5	60.2	71.1	80.0	99.5	(14.9)	(10.9)	(15.3)	(16.6)	(31.1)
1. Canada	21.4	31.[illegible]	32.5	36.2	43.1	3.5	5.1	7.0	11.4	13.1	17.9	26.5	25.5	24.8	30.0
2. European Economic Community	3.0	4.0	7.3	8.6	7.8	11.4	13.2	15.3	15.0	15.7	(8.4)	(9.2)	(8.0)	(6.4)	(7.9)
3. United Kingdom	1.8	2.8	3.3	3.7	3.4	3.1	3.5	4.6	4.7	3.8	(1.3)	(0.7)	(1.3)	(1.0)	(0.4)
4. Japan	.3	.4	.8	1.0	1.7	28.1	32.3	36.6	38.8	52.6	(27.8)	(31.9)	(35.8)	(37.8)	(50.9)
5. All others	10.1	10.5	11.9	13.9	12.4	5.4	6.1	7.6	10.1	14.3	4.7	4.4	4.3	3.8	(1.9)

From 1965–69, fastener imports grew from $51.5 million to $99.5 million, an increase of 93 percent. Fastener imports are concentrated in the low-price standard type fasteners in contrast to U.S. exports, which are generally limited to sophisticated fastening devices. A significant quantity of these imports, such as wood screws, find their way to hardware and retail outlets, while the remainder goes into manufacturing. However, manufacturing is taking an increasingly large portion of the total.

The U.S. trade balance for fasteners shows an increasingly larger deficit for the last 5 years, growing from $15 million in 1965 to $31 million in 1969. The U.S. had a $30 million surplus with Canada, but a deficit with all other countries. The surplus with Canada stems mostly from inter-company shipments. Japan is the largest U.S. supplier, shipping $53 million in fasteners in 1969. This was double the 1965 level of $28.1 million and represented over half of the total U.S. imports of fasteners. If it were not for the Japanese imports the U.S. would have a $20.9 million surplus in 1969. (See table, p. 63.)

Measurement Factors: The major deterrents to U.S. exporting fasteners are nearly all related to cost. High shipping costs and prohibitive tariff duties increase the prices of U.S. produced fasteners to the point that they are not competitive. This is particularly true of standard fasteners. Besides these cost

Factors Affecting U.S. Exports of Industrial Fasteners

Promoting	Percent of total rankings
1. Reputation and reliability of product	21.4
2. Prices are competitive	19.2
3. Higher quality products	15.6
4. Superior technology	11.4
5. Products are designed and manufactured in U.S. customary units and engineering standards	2.6
6. Products are designed and manufactured in metric units and engineering standards	.....
7. All others	29.8
Total	100.0
Deterring	
1. Prices are not competitive	24.0
2. Strong local and third country competition	21.8
3. Products are designed and manufactured in U.S. customary units and engineering standards	20.2
4. High shipping costs	8.9
5. No quality advantage of products	8.1
6. Nontariff barriers	5.3
7. Products are designed and manufactured in metric units and engineering standards	.....
8. All others	11.7
Total	100.0

factors, most countries have their own fastener industries which are strong competitors to U.S. producers.

The chief factors promoting U.S. exports are the reputation, reliability, and quality of U.S. fasteners and superior technology. Additionally, a significant portion of U.S. exports are to subsidiaries or affiliates abroad which are producing U.S. designed and manufactured products.

The U.S. customary measurement system used to design and manufacture fasteners ranks below other deterring factors relating to costs. However, the measurement system is a more important export deterrent for fasteners than for most other product classes. This does not mean that if the U.S. converted to the metric system the fastener industry could export more; in fact, it may decline because U.S. manufacturers who are producing abroad and buying U.S. produced fasteners may buy metric fasteners locally. One respondent summarized the problem as follows: "The subject of conversion to metric standards as an influence on exports is so secondary to the tariff and non-tariff restraints in Europe and Japan as to be irrelevant. Get us free trade with export markets on an equal basis and the matter of what standards such exports are in, will take care of itself."

The principal factors promoting the importation of industrial fasteners are competitive pricing and reputation and reliability of products. These two factors account for 57 percent of the total rankings. Importers ranked measurement as an important promoting as well as deterring factor. (See tables pp. 64 and 65.)

Factors Affecting U.S. Imports of Industrial Fasteners

Promoting	Percent of total rankings
1. Prices are competitive	38.6
2. Reputation and reliability of product	18.7
3. Products are designed and manufactured in U.S. customary units and engineering standards	8.1
4. Growing U.S. market	3.2
5. All others	31.4
Total	100.0
Deterring	
1. Strong U.S. competition	20.0
2. No quality advantage of product	16.7
3. No technological advantage of product	12.8
4. Prices are not competitive	9.8
5. High shipping costs	8.9
6. Products are designed and manufactured in metric units and engineering standards	8.3
7. All others	23.5
Total	100.0

THE ELECTRONIC COMPUTING INDUSTRY[1]

Inasmuch as the computer industry supplies nearly all worldwide demand, the U.S. customary measurement system which is used to design and manufacture this equipment is not an important variable affecting our foreign trade. Exports of computer equipment are currently growing twice as fast as domestic shipments. Imports are virtually nil. The outlook for continued export growth in this equipment category remains exceptionally bright.

In most cases, computer firms furnish foreign customers not only the equipment, but also engineering and technical assistance, software, as well as maintenance and servicing. Because nearly all equipment installed abroad is maintained and serviced by U.S. computer firms, the measurement system which is used to design and manufacture this equipment is of little concern to foreign customers. This total package purchase greatly reduces the importance of the measurement system to the foreign customer.

Foreign Trade Patterns: In 1969, the U.S. exported nearly three-quarters of a billion dollars of electronic computing equipment, including parts and attachments. Exports were up over 225 percent since 1965, advancing from $223 million to $728 million. This represented an annual increase of nearly 35 percent. Though the U.S. is importing some parts and attachments for electronic computing equipment, the quantity is believed to be very small. Most imports are coming from foreign affiliates of U.S. parent companies.

In 1970, U.S. exports of computer equipment reached about $1 billion and are projected to climb to $2 billion by 1974. The European Common Market is the largest, taking over a third of the total U.S. exports of computer equipment. In 1969, exports to the EEC countries were $255.5 million; since 1965, they have been growing about 32 percent annually. The United Kingdom bought over $104.5 million of U.S. computer equipment in 1969. Canada imported nearly $100.0 million in 1969 and Japan, $91.3 million.

In the past, foreign demand has lagged behind the rapidly growing U.S. demand. However, this is now changing and foreign markets are growing twice as fast as the U.S. market. Managements in many foreign companies are now taking advantage of computer technologies to upgrade their production performance and reduce costs, to provide better services to consumers, and to solve problems more efficiently.

In 1969, over 80 percent of the 34,000 computers installed or on-order abroad were produced by U.S. firms. Much of the remaining 20 percent was produced under U.S. license. U.S. industry has pioneered and developed the widest range of computer equipment for application to the simplest task and also to the most advanced problem. As a consequence, this technological edge has given the industry a virtual monopoly of the world's electronic computer market. However, this will be changing in the future since many foreign producers are now moving into the computer market and several plan to make a super computer in the 1975–80 period. (See table, p. 68.)

Measurement Factor: The U.S. customary measurement system which is used to design and manufacture electronic computing equipment poses no hindrance or obstacle to U.S. exports of this equipment. The large U.S. trade surplus for this equipment is attributed to: (1) superior technology, (2) reputation and reliability of products, (3) aggressive marketing, (4) growing foreign markets, and (5) product maintenance and servicing. See table below.)

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[1] Standard Industrial Classification 3573.

A distinctive characteristic of the U.S. computer industry is its marketing practices. Nearly all equipment whether leased or sold outright involves a total package purchase. For one price a U.S. computer firm furnishes its customers engineering and technical services, the equipment, the software programs, and most importantly, the maintenance and servicing of the equipment. Therefore, insofar as the customer is concerned, maintenance and servicing are no problem and it makes little or no difference to him what measurement system was used in the design and manufacture of the computer equipment. Customers rarely, if ever, service their own equipment.

Of the 9 BDC rspondents to the survey in SIC 3573, none manufactured equipment in both metric and U.S. customary measurement systems. However, three respondents did indicate that they described their export shipments in both metric and in U.S. customary units. In fact, nearly 50 percent of the export shipments of computer equipment are described in both measurement systems in engineering drawings, catalogues, brochures, etc. Several respondents indicated that their equipment has to be compatible with the electrical supply in foreign countries and must meet certain electrical specifications. However, they hastened to add that this was no limitation to exporting. One peripheral manufacturer, whose products are designed and manufactured in the U.S. customary system, stated that compatibility with metric designed hardware was not currently a problem, but thought it could become so after 1975 when advances in technology bring foreign equipment approximately to the level of U.S. products. If this development takes place, the respondent indi-

Factors Promoting U.S. Exports of Electronic Computing Equipment

	Percent of total rankings
1. Superior technology of product	20.8
2. Reputation and reliability of product	16.9
3. Vigorous company export promotion program	16.7
4. Growing foreign markets	13.6
5. Product maintenance and servicing is available	14.0
6. Products are designed and manufactured in U.S. customary units and engineering standards	.....
7. Products are designed and manufactured in metric units and engineering standards	.....
8. All others	18.0
Total	100.0

U.S. Foreign Trade Summary for Electronic Computing Equipment, 1965–69

(In Millions of Dollars)

Products and countries	U.S. exports					U.S. imports					Trade balance				
	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969
A. Electronic computing equipment	222.8	295.3	431.8	486.4	727.8	.....	.....	.....	.....	.....	222.8	295.3	431.8	486.4	727.8
1. Electronic data processing machines, except typewriters and parts	145.4	202.9	313.4	344.5	428.5	.....	.....	.....	.....	.....	145.4	202.9	313.4	344.5	428.5
2. Parts and attachments, for electronic data processing machines	77.4	92.4	118.4	141.9	299.3	.....	.....	.....	.....	.....	77.4	92.4	118.4	141.9	299.3
B. Countries, total	222.8	295.3	431.8	486.4	727.8	.....	.....	.....	.....	.....	222.8	295.3	431.8	486.4	727.8
1. Canada	24.7	48.5	63.6	66.1	99.9	.....	.....	.....	.....	.....	24.7	48.5	63.6	66.1	99.9
2. European Economic Community	83.3	105.8	165.8	180.4	255.5	.....	.....	.....	.....	.....	83.3	105.8	165.8	180.4	255.5
3. United Kingdom	40.4	46.8	65.4	79.8	104.5	.....	.....	.....	.....	.....	40.4	46.8	65.4	79.8	104.5
4. Japan	30.8	33.4	54.7	59.3	91.3	.....	.....	.....	.....	.....	30.8	33.4	54.7	59.3	91.3
5. All others	43.6	60.8	82.3	100.8	176.6	.....	.....	.....	.....	.....	43.6	60.8	82.3	100.8	176.6

cated that his firm would take the necessary steps to compete, despite higher costs.

All survey respondents indicated that the U.S. customary measurement system was not a hindrance to exporting. None had lost an export sale in the last 3 years because of inability to meet the measurement specifications.

When asked to estimate the percentage change in 1975 exports over 1970, assuming: (a) the U.S. maintained its current measurement system, and (b) the U.S. had converted to the metric system, nearly all respondents reported there would be no significant difference in their trade if the U.S. converted.

Finally, when asked if the United Kingdom's conversion to the metric system would adversely affect exports, four respondents answered negatively, four said they did not know, and one said it would.

Respondents' Estimated Percentage Change in Export Shipments in 1975 Compared With 1970 Using Two Assumptions*

	Estimated percentage change					
	No change	0.1–25.0	25.1–50.0	50.1–100.0	100.1–200.0	Over 200.1
Assumption A...............	3	0	5	0	1	0
Assumption B...............	3	0	5	0	0	1

*Assumptions:

(1) The 8 percent annual growth rate in Free World international trade for the last 6 years will continue for the period 1970–75.

(2) United Kingdom, Canada, Australia, and New Zealand have substantially completed conversion to the metric measurement system by 1970.

(3) Estimate based on current 1970 dollars.

(A) The United States and your company will continue to use the current customary measurement units and/or engineering standards (this assumes that among all major industrialized countries only the U.S. will not have converted).

(B) The United States and your company had converted to the metric measurement units and/or engineering standards by 1970. (This assumes there would be no changes in the cost of producing the subject product in metric units and/or engineering standards.)

THE CONSTRUCTION MACHINERY AND EQUIPMENT INDUSTRY[1]

The construction machinery and equipment (CME) industry is an international industry, supplying over 85 percent of world demand for this product. Currently, the industry exports one-third of it domestic output and generates a $1.2 billion foreign trade surplus.

The U.S. customary measurement system used to design and manufacture

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[1] Standard Industrial Classification 3531.

CME is not important either in promoting or deterring U.S. exports of this equipment. Reputation, reliability, and quality of equipment, superior technology, availability of maintenance and service, a vigorous export promotion program, and competitive pricing are all factors currently responsible for the large U.S. trade surplus of CME.

Practically all worldwide production of CME is designed to the U.S. customary measurement system. U.S. conversion to the metric system would have little impact on U.S. foreign trade in CME.

During the seventies, the U.S. foreign trade surplus in CME will probably deteriorate because many U.S. manufacturers will be producing abroad. Five years ago, U.S. manufacturers of CME had little off-shore production. Currently, off-shore production by U.S. manufacturers is estimated to be about $700 million annually, and reliable sources estimate that by 1980 this trend may increase to as much as $2.5 billion. Domestic production of CME will probably decline from $4.0 billion to $3.0 billion during the same time period. Lower costs of labor, material, and shipping, and no tariff duties encourage U.S. firms to manufacture abroad.

Foreign Trade Patterns: The industry exports one-third of its total domestic production of $4 billion, and it manufactures another estimated $700 million of equipment abroad through its foreign-based subsidiaries and affiliates.

As the major supplier to the free world, the U.S. manufactures nearly 100 percent of the large capacity, high-value CME, such as large cranes, shovels, tracklaying and wheel-type tractors. Foreign producers compete mostly on low value and small capacity CME.

One important factor which helps U.S. manufacturers supply the major portion of world CME is their extensive worldwide franchise dealership organizations. These function not only as sales organizations but also provide financing, maintenance and servicing, replacement parts and equipment, and many other services. These services, coupled with a large product line, make U.S. producers effective competitors.

Practically all worldwide production of CME is designed and manufactured to U.S. customary measurement system. The reason is that most foreign produced CME are copies of U.S. equipment and much of the equipment is made under license arrangements with U.S. producers.

In 1969, U.S. export shipments of CME amounted to $1.3 billion, up from $1.1 billion in 1965, an increase of 21 percent. Of this, parts and attachments totaled $278 million, up 30 percent over 1965. Parts and attachments were primarily intercompany shipments which will probably continue to grow as off-shore production increases. Exports of tracklaying type tractors were $240.5 million in 1969 followed by cranes, draglines, and shovels totaling $195.2 million. This last category demonstrated the largest growth, increasing 37 percent from the 1965–69 period.

Inasmuch as the U.S. dominates the worldwide market for CME, imports from other countries are very small, amounting to $97.6 million in 1969. This is overstated because it includes not only CME but also mining machinery and equipment. BDC estimated CME imports in 1969 to be about $69 million, up from $37 million in 1965.

In 1969, the U.S. trade surplus in CME amounted to $1.2 billion, up slightly from $995.5 million in 1965. (As noted above, this is understated because it includes imports of mining equipment as well as CME.) The U.S. CME trade surplus was $232 million with Canada and $171 million with the Common Market countries. In 1965–69, the CME trade surplus with the Latin American countries increased from $163 million to $230 million. The surplus with Asian countries, except Japan, was about $167 million in 1969, down slightly from $173 million in 1965. (See table, p. 73.)

Measurement Factors: Measurement when related to other factors affecting U.S. foreign trade of CME is of minor significance. Reputation, reliability, and quality of equipment; superior technology; availability of maintenance and servicing; vigorous export promotion programs; competitive pricing; and good financing and insurance terms are responsible for the large U.S. trade surplus of CME.

Deterrents to U.S. exports cited were: prices, strong local and third country competition, high shipping costs, no quality advantage of product, high tariffs, and no technological advantage. Rarely was the measurement system identified as either promoting or deterring U.S. foreign trade. (See table, p. 74.)

None of the 25 survey respondents designed and manufactured their equipment in both metric and U.S. customary units and engineering standards. However, seven respondents indicated they described their export shipments in both measurement systems in their engineering drawings, catalogues, brochures, etc.

Over 90 percent of the CME exports are described, designed, and manufactured to U.S. customary units and engineering standards. Nearly all of the remaining exports were designed and manufactured in U.S. customary units and engineering standards, but were described in both measurement systems. Only 15 percent of the exports of those respondents in the survey went to foreign affiliates and subsidiaries and the remainder to other customers.

Only three respondents found it a hindrance to export because their equipment was not designed and manufactured in metric units and engineering standards. They reported a growing pressure from foreign customers to manufacture their equipment in metric units and standards. None of the respondents solicit export orders for equipment to be built in metric units and standards, and only three respondents lost orders in the last 3 years because they could not meet the metric specifications. Asked if their exports would be adversely affected when the United Kingdom converts to the metric system, 20 respondents replied negatively, 3 affirmatively, and 2 did not know.

Although reporting that the measurement system was relatively unimportant in foreign trade of CME, many respondents expected an increase in trade if the U.S. were to convert to the metric system. When asked to estimate the percentage change in their 1975 exports over 1970 assuming the U.S. maintained its current measurement system, over half the respondents stated there would be no change. Sixteen percent estimated an increase and 32 percent anticipated a decline.

Half the respondents estimated no change and half an increase in their 1975 exports over 1970, assuming the U.S. had converted to the metric system. None estimated a decline in exports, in contrast to the 32 percent estimating a decline assuming the U.S. had not converted to the metric system. However, nearly all of those respondents anticipating an increase from conversion to the metric system had relatively small exports except for one large exporter.

Respondents' Estimated Percentage Change in Export Shipments in 1975 Compared with 1970 Using Two Assumptions*

	Estimated percentage change						
	−25.1 and over	−10.0 to −24.9	−0.1 to −9.9	No change	0.1 to 9.9	10.0 to 24.9	25.0 and over
Assumption 3A..................	5	2	1	13	0	1	3
Assumption 3B..................	0	0	0	13	3	3	6

*Assumptions:

(1) The 8 percent annual growth rate in Free World International trade for the last 6 years will continue for the period 1970–75.

(2) United Kingdom, Canada, Australia, and New Zealand have substantially completed conversion to the metric measurement system by 1970.

(3) Estimate based on current 1970 dollars.

(A) The United States and your company will continue to use the current customary measurement units and/or engineering standards (this assumes that among all major industrialized countries only the U.S. will not have converted).

(B) The United States and your company had converted to the metric measurement units and/or engineering standards by 1970. (This assumes there would be no changes in the cost of producing the subject product in metric units and/or engineering standards.)

U.S. Foreign Trade Summary for Construction Machinery and Equipment, 1965–69[1]

(In Millions of Dollars)

Products and countries	U.S. exports					U.S. imports[2]					Trade balance				
	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969	1965	1966	1967	1968	1969
A. Construction machinery and equipment, total	1,054.9	1,048.8	1,082.0	1,174.9	1,279.1	59.4	85.0	82.2	74.7	97.6	995.5	963.8	999.8	1,100.2	1,181.5
B. Countries, total	1,054.9	1,048.8	1,082.0	1,174.9	1,279.1	59.4	85.0	82.2	74.7	97.6	995.5	963.8	999.8	1,100.2	1,181.5
1. Canada	236.4	241.8	233.4	232.3	274.4	25.6	42.1	36.8	33.5	42.9	210.8	199.7	196.6	198.8	231.5
2. European Economic Community	132.1	121.7	136.8	159.8	201.3	16.9	22.5	25.0	26.6	30.8	115.2	99.2	111.8	133.2	170.5
3. United Kingdom	39.9	35.8	45.1	43.2	34.9	7.5	8.5	8.9	5.7	8.2	32.4	27.3	36.2	37.5	26.7
4. Japan	9.7	19.5	28.5	28.2	38.6	0.4	2.0	2.7	3.0	8.9	9.3	17.5	25.8	25.2	29.7
5. All others	636.8	630.0	638.2	711.4	729.9	9.0	9.9	8.8	5.9	6.8	627.8	620.1	629.4	705.5	723.1

[1] SIC 3531

[2] Includes both SIC 3531 and 3532 (mining machinery and equipment)

Factors Affecting U.S. Exports of Construction Machinery and Equipment

Promoting	Percent of total ranking
1. Reputation and reliability of product	22.7
2. Superior technology	19.3
3. Higher quality products	16.3
4. Product maintenance and servicing is available	11.6
5. Vigorous company export promotion program	9.9
6. Products are designed and manufactured in U.S. customary units and engineering standards	.....
7. Products are designed and manufactured in metric units and engineering standards	.....
8. All others	20.2
Total	100.0
Deterring	
1. Prices are not competitive	23.6
2. Non-tariff barriers	22.2
3. High shipping costs	16.5
4. No quality advantage of product	9.3
5. High tariff duties	9.0
6. Products are designed and manufactured in U.S. customary measurement units and standards	5.1
7. Products are designed and manufactured in metric units and engineering standards	.....
8. All others	14.3
Total	100.0

OBJECTIVES AND METHODOLOGY OF STUDY

Public Law 90–742, dated August 8, 1968, authorizes the Secretary of Commerce to undertake a study to determine the effect on the United States of increased worldwide use of the metric system. Pertinent to the report is section 2 of the Law which states ". . . the Secretary, among other things, shall—(1) investigate and appraise the advantages and disadvantages to the United States in international trade and commerce, . . . of an internationally standardized system of weights and measures."

The Secretary of Commerce delegated to the National Bureau of Standards (NBS) authority to prepare the Study. The Metric Study will consist of 14 major investigative components, each dealing with a specific area. Findings of these individual studies will be incorporated into the Metric Study to be submitted by the Secretary of Commerce to the United States Congress.

One major investigative component of the Metric Study has as its objective: "to evaluate the potential effects that U.S. conversion to metric measurements and standards may have on U.S. foreign trade." In May 1970, the NBS engaged the Business and Defense Services Administration (BDSA), now the Bureau of Domestic Commerce (BDC), to undertake this part of the Metric Study.

Accordingly, BDC conducted a survey of exporters and importers of commodities which would be affected by a conversion to the metric system. The survey consisted of four phases: (1) selection of the five-digit Standard Industrial Classification (SIC) product classes to be studied; (2) selection of firms to be surveyed; (3) preparation, mailing, followup, editing, and tabulation of questionnaires; and (4) analysis of data and writing of report.

Selection of Product Classes: The Survey was restricted to those product classes (five-digit SIC) which were identified as being measurement sensitive. These are product classes where physical changes to commodities would most likely occur because of changes to metric measurements and engineering standards. If physical changes to products were not likely to occur because of conversion, or if the product would remain the same except for labeling or packaging in metric units, it was assumed that there would be no impact on foreign trade. These product classes were excluded from the survey.

In selecting the product classes it was further assumed that the existing U.S. customary measurement system and engineering standards would ultimately change to new metric measurements and engineering standards. Thus, physical changes would occur in those products currently designed and manufactured in accordance with U.S. engineering standards. Included would be: (1) finished products currently manufactured in U.S. engineering standards; (2) intermediate products which are standard parts and components; and (3) finished products, not produced to any standards, but which must be redesigned to accommodate standard parts and components designed and manufactured in metric units and standards.

Certain exceptions were made to the criteria used to identify measurement sensitive product classes. For example, products were not included in the survey (1) when U.S. engineering standards are currently used worldwide and it would be unrealistic to change them; e.g., locomotive and railroad equipment and oil field machinery; and (2) when products are exported and imported to certain specifications or job orders, such as steam, gas, and hydraulic turbine generators.

Because of budget restrictions, product classes identified as measurement sensitive which had trade volume of less than $10 million were not surveyed. This reduced the number of product classes surveyed for exports by 54 and for imports, 52. The 1969 trade volume in the export product classes not surveyed amounted to $244.2 million, which was only 1.8 percent of the total trade for all export product classes identified as being measurement sensitive. The 1969 trade volume for import product classes not surveyed was $134.3 million, or 2.2 percent of all import product classes classified as measurement sensitive.

An important assumption underlying the survey was that no price changes would result from additional costs of metric conversion. Implicit in this assumption is that competitive relationships, insofar as price is concerned, between domestic and foreign producers will remain unchanged. It was impossible to identify those product classes, if any, which might experience increased costs owing to metric conversion.

Using these criteria and assumptions, the 1,166 five-digit SIC product classes were reviewed to identify those which were measurement sensitive and 188 were selected for exports and 155 for imports. Most of the selected product classes fall within four major SIC groupings: nonelectrical machinery, electrical equipment and supplies, transportation equipment, and instruments and related products. See page 86 for a list of product classes identified as meeting the criteria for inclusion in the survey.

Selection of Survey Panel: The American Industrial Trader's Index (AITI) was used to select firms. The AITI is a computerized compilation of U.S. exporting and importing firms registered with the Department of Commerce. The list provides names and addresses as well as a substantial amount of information on each firm, including product classes each firm exports and imports.

An effort to stratify the survey panel by firm size was unsuccessful because the number of small firms engaged in foreign trade is insufficient. The bulk of foreign trade is carried on by a small number of large firms. One source estimates that 50 percent of U.S. exports are shipped by 93 large firms.

The Panel selected for the survey was not a scientific or probability sample of the total trade in each product class identified as being measurement sensitive. Though the AITI identifies product classes in which many firms export and import, it does not provide information on a firm's trade volume in each product class which is necessary to draw a representative sample for the survey. Instead, the number of respondents selected for each product class was based on the total trade volume of the product class. The larger the product class trade volume, the larger the number of firms selected for the panel. For each product class having a trade volume of $10 million to $49.9 million, five firms were drawn; for product classes with trade volume of $50.0 million to $99.9 million, seven firms were drawn; and for product classes with a trade volume of $100.0 million and over, 10 firms were chosen.

The survey panel comprised 510 firms. Most firms were asked to report for more than one product class. The response to this voluntary survey was exceptionally high. Nearly 74 percent of the firms canvassed reported. About 45 percent of the total 1969 export volume of the product classes identified as measurement sensitive was covered in the survey. For imports the percentage was nearly 37.

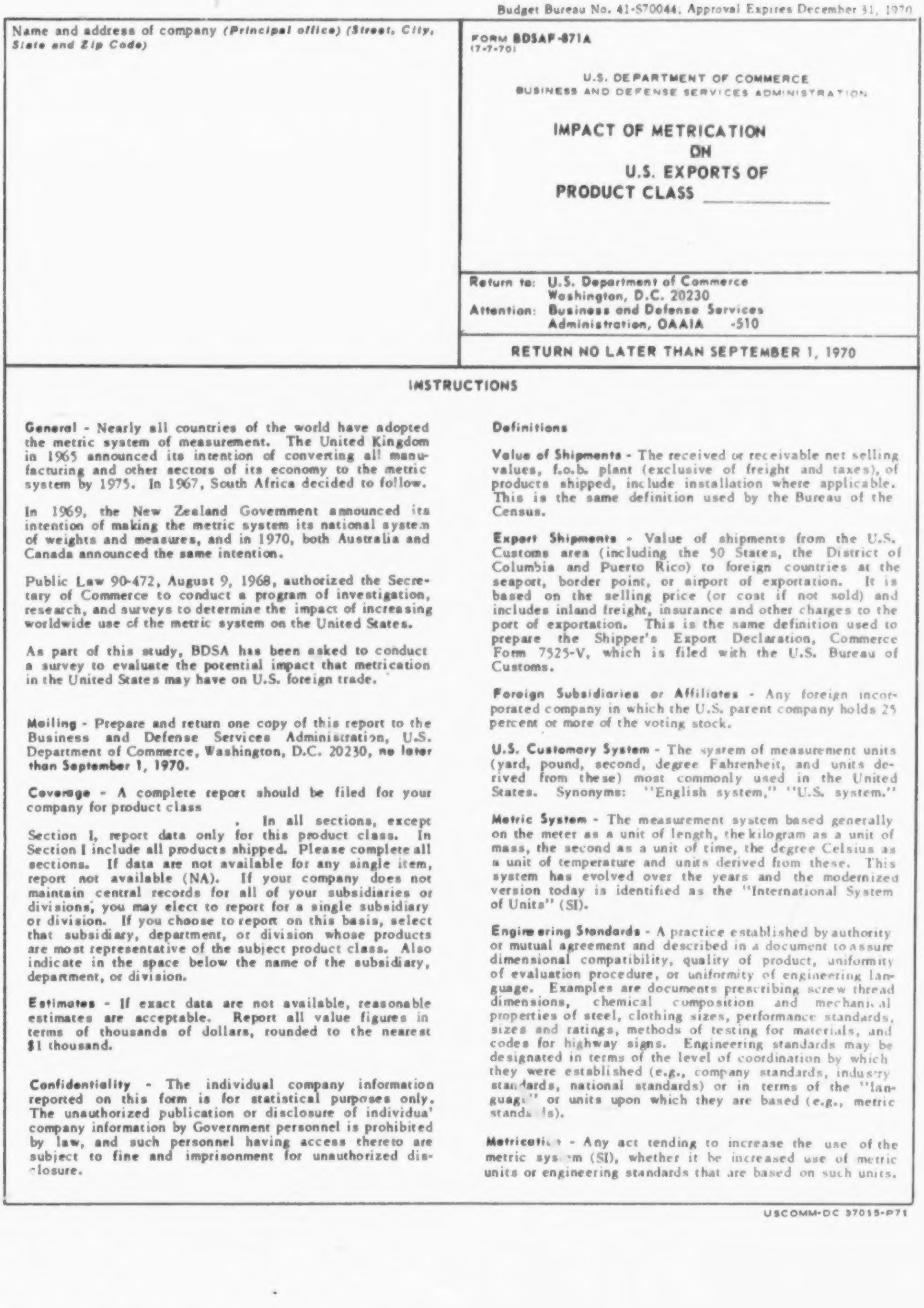
The Survey Questionnaire: Separate questionnaires were designed for exporters and importers. The questionnaires collected three broad classes of information: (1) general information about the firm's foreign trade operations; (2) information about those factors which affect the respondents' trade; and (3) projections of the respondents' trade to 1975. See pp. 78 to 85 for copies of questionnaires.

Information sought included not only the magnitude of respondents' trade for the years 1967–69, but also data on shipments from/imports to foreign affiliates and other customers. Trade data were also collected on respondents' shipments/imports by measurement system. Besides determining the quantity of trade which was shipped/imported in U.S. customary measurements, data were also gathered on that trade which was shipped/imported in metric units and engineering standards. The respondent was also asked to rank the five most important factors either promoting or deterring foreign trade with the nine countries which are the most important U.S. trading partners.

About 12 or 14 factors were listed from which the respondent ranked the five most important including measurement, both metric and U.S. customary. This information was required to obtain some notion of how important the measurement factor is in relation to other factors affecting the respondent's trade.

The third category of information collected was the respondent's estimate of the percentage change in his 1975 exports/imports over 1970 based on two assumptions: (1) the U.S. and his firm maintained the current measurement system; and (2) the U.S. and his firm converted to the metric system. (See the questionnaires for other assumptions.) The rationale underlying these estimates was to hold all factors constant except the measurement system factor. The net difference between the two estimates would provide data as to which measurement system would yield the larger trade surplus, if any, for the U.S.

The Final Report: The fourth and final phase of the study involves the analysis of the data collected and the preparation of a final report for incorporation into the Secretary of Commerce's report to the U.S. Congress.



Budget Bureau No. 41-S70044, Approval Expires December 31, 1970

Name and address of company *(Principal office) (Street, City, State and Zip Code)*

FORM **BDSAF-871A**
(7-7-70)

U.S. DEPARTMENT OF COMMERCE
BUSINESS AND DEFENSE SERVICES ADMINISTRATION

**IMPACT OF METRICATION
ON
U.S. EXPORTS OF
PRODUCT CLASS ____________**

Return to: U.S. Department of Commerce
Washington, D.C. 20230
Attention: Business and Defense Services
Administration, OAAIA -510

RETURN NO LATER THAN SEPTEMBER 1, 1970

INSTRUCTIONS

General - Nearly all countries of the world have adopted the metric system of measurement. The United Kingdom in 1965 announced its intention of converting all manufacturing and other sectors of its economy to the metric system by 1975. In 1967, South Africa decided to follow.

In 1969, the New Zealand Government announced its intention of making the metric system its national system of weights and measures, and in 1970, both Australia and Canada announced the same intention.

Public Law 90-472, August 9, 1968, authorized the Secretary of Commerce to conduct a program of investigation, research, and surveys to determine the impact of increasing worldwide use of the metric system on the United States.

As part of this study, BDSA has been asked to conduct a survey to evaluate the potential impact that metrication in the United States may have on U.S. foreign trade.

Mailing - Prepare and return one copy of this report to the Business and Defense Services Administration, U.S. Department of Commerce, Washington, D.C. 20230, **no later than September 1, 1970.**

Coverage - A complete report should be filed for your company for product class . In all sections, except Section I, report data only for this product class. In Section I include all products shipped. Please complete all sections. If data are not available for any single item, report not available (NA). If your company does not maintain central records for all of your subsidiaries or divisions, you may elect to report for a single subsidiary or division. If you choose to report on this basis, select that subsidiary, department, or division whose products are most representative of the subject product class. Also indicate in the space below the name of the subsidiary, department, or division.

Estimates - If exact data are not available, reasonable estimates are acceptable. Report all value figures in terms of thousands of dollars, rounded to the nearest $1 thousand.

Confidentiality - The individual company information reported on this form is for statistical purposes only. The unauthorized publication or disclosure of individual company information by Government personnel is prohibited by law, and such personnel having access thereto are subject to fine and imprisonment for unauthorized disclosure.

Definitions

Value of Shipments - The received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of products shipped, include installation where applicable. This is the same definition used by the Bureau of the Census.

Export Shipments - Value of shipments from the U.S. Customs area (including the 50 States, the District of Columbia and Puerto Rico) to foreign countries at the seaport, border point, or airport of exportation. It is based on the selling price (or cost if not sold) and includes inland freight, insurance and other charges to the port of exportation. This is the same definition used to prepare the Shipper's Export Declaration, Commerce Form 7525-V, which is filed with the U.S. Bureau of Customs.

Foreign Subsidiaries or Affiliates - Any foreign incorporated company in which the U.S. parent company holds 25 percent or more of the voting stock.

U.S. Customary System - The system of measurement units (yard, pound, second, degree Fahrenheit, and units derived from these) most commonly used in the United States. Synonyms: "English system," "U.S. system."

Metric System - The measurement system based generally on the meter as a unit of length, the kilogram as a unit of mass, the second as a unit of time, the degree Celsius as a unit of temperature and units derived from these. This system has evolved over the years and the modernized version today is identified as the "International System of Units" (SI).

Engineering Standards - A practice established by authority or mutual agreement and described in a document to assure dimensional compatibility, quality of product, uniformity of evaluation procedure, or uniformity of engineering language. Examples are documents prescribing screw thread dimensions, chemical composition and mechanical properties of steel, clothing sizes, performance standards, sizes and ratings, methods of testing for materials, and codes for highway signs. Engineering standards may be designated in terms of the level of coordination by which they were established (e.g., company standards, industry standards, national standards) or in terms of the "language" or units upon which they are based (e.g., metric standards).

Metrication - Any act tending to increase the use of the metric system (SI), whether it be increased use of metric units or engineering standards that are based on such units.

USCOMM-DC 37015-P71

Section I - 1969 TOTAL SHIPMENTS - DOMESTIC AND FOR EXPORT

Item	Value *($000)*
Total Shipments, all products	
1. Domestic shipments	
2. Export shipments	

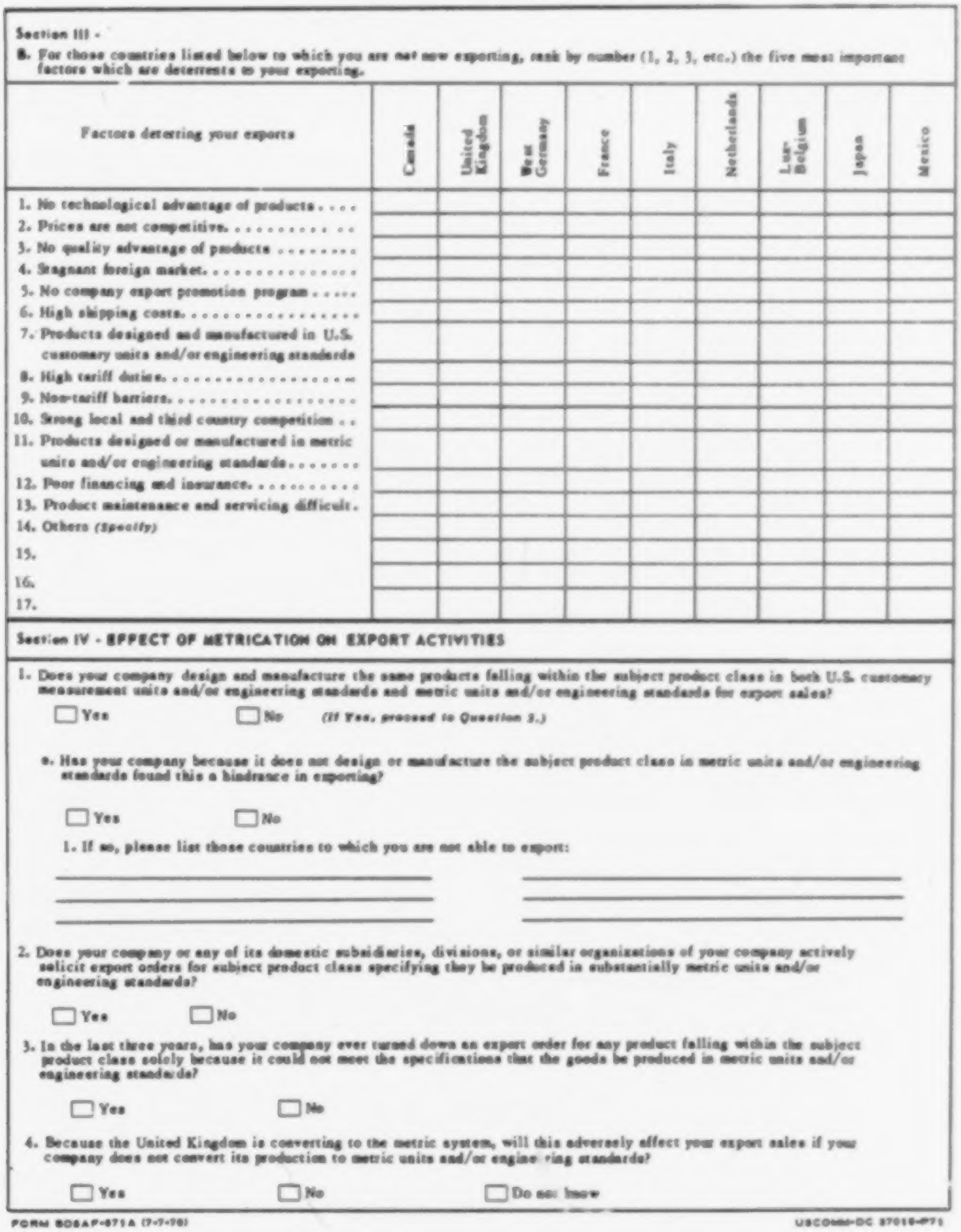
Section II - PRODUCT CLASS SHIPMENTS - DOMESTIC AND FOR EXPORT

Item	Value *($000)*		
	1967	1968	1969
Total shipments, product class			
1. Domestic shipments			
2. Export shipments by customer, total			
a. To foreign affiliates			
1. For further processing or assembly			
2. For resale without further manufacturing			
3. Other			
b. To other foreign customers			
3. Export shipments by system of measurement, total (estimates are acceptable):			
a. Value of exports designed, assembled, manufactured, and described in U.S. customary units and engineering standards.			
b. Value of exports designed and manufactured in U.S. customary units and engineering standards but described in labels, packages, engineering drawings or catalogues in metric units. Descriptions in dual dimensions would be included.			
c. Value of exports designed and manufactured in U.S. customary units and engineering standards but which have been substantially modified or changed to include standard parts, components, or subassemblies designed and manufactured in metric units and engineering standards.			
d. Value of exports designed, assembled, manufactured, and described in metric units and engineering standards.			

Section III - MAJOR FACTORS CURRENTLY INFLUENCING EXPORT SHIPMENTS OF SUBJECT PRODUCT CLASS, BY FOREIGN MARKET - The purpose of this section is to determine the most important factors affecting your current trade in the subject product class by major country, particularly the relative importance of the measurement system (U.S. customary or metric) to all other factors.

A. For those countries to which you are currently exporting, rank by number (1, 2, 3, etc.) the five most favorable factors influencing your sales.

Factors promoting your exports	Canada	United Kingdom	West Germany	France	Italy	Netherlands	Lux-Belgium	Japan	Mexico
1. Superior technology of your products									
2. Prices are competitive									
3. Higher quality products									
4. Reputation and reliability of product									
5. Growing foreign market									
6. Vigorous company export promotion program									
7. Low shipping costs									
8. Products designed or manufactured in U.S. customary units and/or engineering standards									
9. Low tariff duties									
10. Lack of non-tariff barriers									
11. Lack of local and third country competition									
12. Products designed and manufactured in metric units and/or engineering standards									
13. Good financing and insurance									
14. Product maintenance and servicing is available									
15. Others *(Specify)*									
16.									
17.									



Section III -

B. For those countries listed below to which you are *not* now exporting, rank by number (1, 2, 3, etc.) the five most important factors which are deterrents to your exporting.

Factors deterring your exports	Canada	United Kingdom	West Germany	France	Italy	Netherlands	Lux-Belgium	Japan	Mexico
1. No technological advantage of products									
2. Prices are not competitive.									
3. No quality advantage of products									
4. Stagnant foreign market.									
5. No company export promotion program									
6. High shipping costs.									
7. Products designed and manufactured in U.S. customary units and/or engineering standards									
8. High tariff duties.									
9. Non-tariff barriers.									
10. Strong local and third country competition . .									
11. Products designed or manufactured in metric units and/or engineering standards.									
12. Poor financing and insurance.									
13. Product maintenance and servicing difficult.									
14. Others *(Specify)*									
15.									
16.									
17.									

Section IV - EFFECT OF METRICATION ON EXPORT ACTIVITIES

1. Does your company design and manufacture the same products falling within the subject product class in both U.S. customary measurement units and/or engineering standards and metric units and/or engineering standards for export sales?

☐ Yes ☐ No *(If Yes, proceed to Question 2.)*

a. Has your company because it does not design or manufacture the subject product class in metric units and/or engineering standards found this a hindrance in exporting?

☐ Yes ☐ No

1. If so, please list those countries to which you are not able to export:

2. Does your company or any of its domestic subsidiaries, divisions, or similar organizations of your company actively solicit export orders for subject product class specifying they be produced in substantially metric units and/or engineering standards?

☐ Yes ☐ No

3. In the last three years, has your company ever turned down an export order for any product falling within the subject product class solely because it could not meet the specifications that the goods be produced in metric units and/or engineering standards?

☐ Yes ☐ No

4. Because the United Kingdom is converting to the metric system, will this adversely affect your export sales if your company does not convert its production to metric units and/or engineering standards?

☐ Yes ☐ No ☐ Do not know

FORM BDSAF-871A (7-7-70)

USCOMM-DC 37010-P71

Section V - EXPORT POTENTIAL AND METRICATION IMPACT

Report in Part A and B your company's estimated percentage change in export shipments of subject product class in 1975 as compared with 1970 under the following assumptions:
(1) The 8 percent annual growth rate in Free World international trade for the last six years will continue for the period 1970-75.
(2) United Kingdom, Canada, Australia, and New Zealand have substantially completed conversion to the metric measurement system by 1970.
(3) Base estimate on current 1970 dollars.

A. If the United States and your company continue to use current customary measurement units and/or engineering standards, by what percentage would your 1975 export shipments to all countries increase or decrease over 1970? (This assumes that among all major industrialized countries only the U.S. will not have converted.)

Increase ____________ %   No change ____________   Decrease ____________ %

B. If the United States and your company had converted to the metric measurement units and/or engineering standards by 1970, by what percentage would your 1975 export shipments to all countries increase or decrease over 1970? (This also assumes there would be no changes in the cost of producing the subject product in metric units and/or engineering standards. Consideration should also be given to potential new markets where you may not be currently exporting because your products were not manufactured in metric measurements or engineering standards but which would open up, assuming your company had converted to the metric system.)

Increase ____________ %   No change ____________   Decrease ____________ %

C. Under the assumption as in Part B, would your export shipments of subject product class:

1. From the United States to your foreign affiliates, if any, ☐ increase, ☐ decrease, or ☐ remain at the current level?
(Check the appropriate box)

2. From the United States to other foreign customers (other than foreign affiliates) ☐ increase, ☐ decrease, or ☐ remain at the current level?
(Check the appropriate box)

3. From your foreign affiliates, if any, to the United States ☐ increase, ☐ decrease, or ☐ remain the same?
(Check the appropriate box)

4. a. And in what foreign markets (countries) if any, would your company expect its exports from the United States to increase?

____________ ____________ ____________ ____________ ____________

b. And in what foreign markets (countries) if any, would your company expect its exports from the United States to decrease?

____________ ____________ ____________ ____________ ____________

Section VI - REMARKS: Additional comments which would help us evaluate this report. *(Use additional sheet if necessary)*

Name of person who should be contacted if questions arise regarding this report	Area Code and Telephone No.
Reported by *(Signature, Name, and Address)*	Date reported

FORM BDSAF-871A (7-7-70)   USCOMM-DC 37015-P71

Budget Bureau No. 41-S70044, Approval Expires December 31, 1970

Name and address of company *(Principal office) (Street, City, State and Zip Code)*

FORM **BDSAF-871B**
(7-7-70)

U.S. DEPARTMENT OF COMMERCE
BUSINESS AND DEFENSE SERVICES ADMINISTRATION

IMPACT OF METRICATION ON U.S. IMPORTS OF PRODUCT CLASS ____________

Return to: **U.S. Department of Commerce**
Washington, D.C. 20230
Attention: **Business and Defense Services**
Administration, OAAIA -510

RETURN NO LATER THAN SEPTEMBER 1, 1970

INSTRUCTIONS

General - Nearly all countries of the world have adopted the metric system of measurement. The United Kingdom in 1965 announced its intention of converting all manufacturing and other sectors of its economy to the metric system by 1975. In 1967, South Africa decided to follow.

In 1969, the New Zealand Government announced its intention of making the metric system its national system of weights and measures, and in 1970, both Australia and Canada announced the same intention.

Public Law 90-472, August 9, 1968, authorized the Secretary of Commerce to conduct a program of investigation, research, and survey to determine the impact of increasing worldwide use of the metric system on the United States.

As part of this study, BDSA has been asked to conduct a survey to evaluate the potential impact that metrication in the United States may have on U.S. foreign trade.

Mailing - Prepare and return one copy of this report to the Business and Defense Services Administration, U.S. Department of Commerce, Washington, D.C. 20230, **no later than September 1, 1970.**

Coverage - A complete report should be filed for your company for product class .
In all sections, except Section I, report data only for this product class. In Section I include all products shipped. Please complete all sections. If data are not available for any single item, report not available (NA). If your company does not maintain central records for all of your subsidiaries or divisions, you may elect to report for a single subsidiary or division. If you choose to report on this basis, select that subsidiary, department, or division whose products are most representative of the subject product class. Also indicate in the space below the name of the subsidiary, department or division

Estimates - If exact data are not available, reasonable estimates are acceptable. Report all value figures in terms of thousands of dollars, rounded to the nearest $1 thousand.

Confidentiality - The individual company information reported on this form is for statistical purposes only. The unauthorized publication or disclosure of individual company information by Government personnel is prohibited by law, and such personnel having access thereto are subject to fine and imprisonment for unauthorized disclosure.

Definitions

Value of Imports - The market value in the foreign country, excluding U.S. import duties, freight charges, and insurance, for goods coming into the U.S. customs area (the 50 States, the District of Columbia, and Puerto Rico) without regard to whether the importation involved a commercial transaction. This is the same value information required on import entries in accordance with Sections 402 and 402(A) of the Tariff Act of 1930, as amended.

Foreign Subsidiaries or Affiliates - Any foreign incorporated company in which the U.S. parent company holds 25 percent or more of the voting stock.

U.S. Customary System - The system of measurement units (yard, pound, second, degree Fahrenheit, and units derived from these) most commonly used in the United States. Synonyms: "English system," "U.S. system."

Metric System - The measurement system based generally on the meter as a unit of length, the kilogram as a unit of mass, the second as a unit of time, the degree Celsius as a unit of temperature and units derived from these. This system has evolved over the years and the modernized version today is identified as the "International System of Units" (SI).

Engineering Standards - A practice established by authority or mutual agreement and described in a document to assure dimensional compatibility, quality of product, uniformity of evaluation procedure, or uniformity of engineering language. Examples are documents prescribing screw thread dimensions, chemical composition and mechanical properties of steel, clothing sizes, performance standards, sizes and ratings, methods of testing for materials, and codes for highway signs. Engineering standards may be designated in terms of the level of coordination by which they were established (e.g., company standards, industry standards, national standards) in terms of the "language" or units upon which they are based (e.g., metric standards).

Metrication - Any act tending to increase the use of the metric system (SI), whether it be increased use of metric units or engineering standards that are based on such units.

USCOMM-DC 37014-P71

Section I - 1969 TOTAL IMPORTS

Item	Value ($000)
1. Total imports, all products.	

Section II - PRODUCT CLASS IMPORTS

Item	Value ($000)		
	1967	1968	1969
1. Total imports of product class by supplier, total.			
a. From foreign affiliates.			
1. For further processing or assembly			
2. For resale without further manufacturing			
3. Other.			
b. From other foreign sources			
1. For further processing or assembly.			
2. For resale without further manufacturing.			
3. Other.			
2. Imports by system of measurement, total (estimates are acceptable).			
a. Value of imports designed, assembled, manufactured, and described in U.S. customary units and engineering standards			
b. Value of imports designed and manufactured in metric units and engineering standards but described in labels, packages, engineering drawings, or catalogues in U.S. customary units. Descriptions in dual dimensions would be included.			
c. Value of imports designed and manufactured in metric units and engineering standards but which have been substantially modified or changed to include standard parts, components, or subassemblies designed and manufactured in U.S. customary units and engineering standards.			
d. Value of imports designed, assembled, manufactured, and described in metric units and engineering standards.			

Section III - MAJOR FACTORS CURRENTLY INFLUENCING IMPORTS OF SUBJECT PRODUCT CLASS, BY FOREIGN SUPPLIER (COUNTRY) - The purpose of this section is to determine the most important factors affecting your current trade in the subject product class by major country, particularly the relative importance of the measurement system (U.S. customary or metric) to all other factors.

A. For those countries from which you are currently importing, rank by number (1, 2, 3, etc.) the five most favorable factors influencing your sales.

Factors promoting your imports	Canada	United Kingdom	West Germany	France	Italy	Netherlands	Lux-Belgium	Japan	Mexico
1. Superior technology of product.									
2. Prices are competitive									
3. Higher quality product.									
4. Reputation and reliability of product									
5. Growing U.S. market									
6. Vigorous company sales promotion program									
7. Low shipping costs									
8. Products designed and manufactured in metric units and/or engineering standards.									
9. Products are designed and manufactured in U.S. customary units and/or engineering standards.									
10. Lack of U.S. domestic competition									
11. Product maintenance and servicing is available									
12. Other *(Specify)*									
13.									

Section III -

B. For those countries listed below from which you are not now importing, rank by number (1, 2, 3, etc.) the five most important factors which are deterrents to your importing.

Factors deterring your imports	Canada	United Kingdom	West Germany	France	Italy	Netherlands	Lux-Belgium	Japan	Mexico
1. No technological advantage of products									
2. Prices are not competitive.									
3. No quality advantage of product.									
4. Stagnant U.S. market.									
5. No company sales promotion program.									
6. High shipping costs.									
7. Products designed and manufactured in U.S. customary units and/or engineering standards.									
8. High U.S. tariff duties									
9. Strong U.S. competition.									
10. Products designed and manufactured in metric units and/or engineering standards. . . .									
11. Product maintenance and servicing not available.									
12. Other *(Specify)*									
13.									
14.									

Section IV - IMPORT POTENTIAL AND METRICATION IMPACT

Report in Part A and B your company's estimated percentage change in imports of subject product class in 1975 as compared with 1970 under the following assumptions:

(1) The 8 percent annual growth rate in Free World international trade for the last six years will continue for the period 1970-75.

(2) United Kingdom, Canada, Australia, and New Zealand have substantially completed conversion to the metric measurement system by 1970.

(3) Base estimate on current 1970 dollars.

A. If the United States and your company continue to use current customary measurement units and/or engineering standards, by what percentage would your 1975 imports increase or decrease over 1970? (This assumes that among all major industrialized countries only the U.S. will not have converted.)

Increase ____________ % No change ________________ Decrease ____________ %

B. If the United States and your company had converted to metric measurement units and engineering standards by 1970, by what percentage would your 1975 imports increase or decrease over 1970? (This assumes there would be no changes in U.S. manufactures cost of producing the subject product in metric units and/or standards.)

Increase ____________ % No change ________________ Decrease ____________ %

C. Under the assumption as in Part B, would your imports of subject product class:

1. From your foreign affiliates, if any, ☐ increase, ☐ decrease, ☐ or remain at the current level
(Please check the appropriate box)

2. From other foreign suppliers (other than foreign affiliates) to the United States ☐ increase, ☐ decrease, ☐ or remain at the current level
(Please check the appropriate box)

3. a. And from what foreign suppliers (countries) if any, would your company expect your imports to increase?

____________ ____________ ____________ ____________ ____________

b. And from what foreign suppliers (countries) if any, would your company expect your imports to decrease?

____________ ____________ ____________ ____________ ____________

FORM BDSAF-671B (7-7-70) USCOMM-DC 37014-P71

Section V - REMARKS. Additional comments which would help us evaluate this report.

Name of person who should be contacted if questions arise regarding this report	**Area Code and Telephone No.**
Reported by ***(Signature, Name, and Address)***	**Date reported**

FORM BDSAF-671B (7-7-70)

USCOMM-DC 37014-P71

Measurement-Standard Sensitive Product Classes Surveyed

SIC	Product description
24	Lumber and wood products
24210	Sawmills and planing mills, general
*24320	Veneer and plywood
24996	Fabricated hardboard products, made from hardboard establishment (imports only)
30	Rubber and plastics products, N.E.C.
30793	Laminated sheets, rods and tubes
33	Primary metal industries
33123	Hot-rolled sheet and strip, including tin-mill products
33124	Hot-rolled bars and bar shapes, plates, structural shapes and piling
33126	Steel pipe and tubes—(produced in steel mills)
33176	Steel pipe and tubes—(not made in steel mills)
33127	Cold rolled steel sheet and strip (produced in steel mills)
33167	Cold rolled steel sheet and strip (not made in steel mills)
33128	Cold finished steel bars and bar shapes (produced in steel mills)
33168	Cold finished steel bars and bar shapes (not made in steel mills)
*33512	Rolled, drawn and extruded copper and copper-base alloy mill products
*33522	Aluminum plate and sheet (including foil stock)
33524	Rolled aluminum rod, bar (including continous cast) of structural shapes
33525	Extruded aluminum rod, bar and other extruded shapes
34	Fabricated metal products
*34231	Mechanics' hand service tools
34233	Files, rasps, and file accessories and other hand tools
34320	Plumbing fixture fittings and trim (brass goods)
34331	Oil burners, residential and industrial (sold separately), except parts
34336	Other heating equipment, except electric, including parts for nonelectric heating equipment
*34410	Fabricated structural steel
4420	Metal doors, sash and trim
4431	Heat exchangers and steam condensers
34433	Steel power boilers, parts and attachments (over 15 P.S.I. steam working pressure)
34435	Metal tanks, complete at factory (standard line pressure)
34437	Metal tanks, complete at factory (standard line nonpressure)
*34492	Prefabricated and portable metal buildings and parts
*34493	Miscellaneous metal building materials and curtain wall
*34521	Bolts, nuts, and other standard industrial fasteners
*34941	Automatic regulating and control valves
*34944	Plumbing and heating valves and specialties (except plumbers' brass goods)
*34945	Metal fittings, flanges and unions for piping systems
34946	Fittings and assemblies for tubing and hose (except plumbers' brass goods)
35	Machinery, except electrical
*35191	Gasoline engines, except aircraft, automobile, truck, bus and tank
*35193	Diesel engines (except for trucks and buses)
*35194	Diesel engines (for trucks and buses)
*35195	Outboard motors
35199	Parts and accessories for internal combustion engines
*35221	Wheel tractors and attachments (except contractor's off-highway type, garden tractors and motor tillers)
35223 pt.	Planting, seeding, and fertilizing machinery (excl. pts.)
35224 pt.	Planes, listers, harrows, rollers, pulverizers, stalk cutters and similar equipment
35225 pt.	Harvesting machinery
35226	Haying machinery
35227	Lawnmowers and snowblowers
*35222 *35228 *35229	All other farm machinery equipment, and parts
*35311	Contractors off-highway wheel tractors, except parts and attachments
*35312	Tracklaying type tractors, except parts, and attachments
*35313	Parts and attachments for tracklaying type tractors, contractors' off-highway wheel tractors, and tractor shovel loaders
*35314	Power crane (including locomotive and full-circle revolving with booms), draglines, shovels and parts
*35316	Mixers, pavers, and related equipment excluding parts
*35317	Tractor shovel loaders, excluding parts and attachments
*35318	Scrapers, graders, rollers, and off-highway trucks, trailers and wagons (excluding parts)

SIC	Product description
*35319	Other construction machinery and equipment, including parts
*35321	Underground mining and mineral beneficiation machinery and equipment
35322	Crushing, pulverizing, and screening machinery
35323	All other mining machinery and equipment
35324	Parts and attachments for mining machinery and equipment
35340	Elevators and moving stairways
*35350	Conveyors and conveying equipment
*35360	Hoists, cranes and monorails
*35370	Industrial trucks and tractors
*35411	Boring machines
35412	Drilling machines
*35413	Gear-cutting and finishing machines
*35414	Grinding and polishing machines (excl. gear tooth grinding honing, lapping, polishing and buffing machines)
*35415	Lathes
*35416	Milling machines
*35418	Other machine tools (including those designed primarily for home workshops, laboratories, etc.)
*35419	Parts for metal-cutting type machine tools, sold separately, rebuilt machine tools.
*35421	Punching, shearing, bending, and forming machines
*35422	Presses, including forging presses
*35423	Other metal-forming machine tools (including forging machines)
35424	Parts for metal-forming machine tools and rebuilt metal forming machinery
*35441	Special dies, and tools, die sets, jigs and fixtures
*35442	Industrial molds
*35451	Small cutting tools for machine tools and metalworking machinery
*35481	Rolling mill machinery and equipment
35482	Power-driven hand tools, including (parts of attachments)
*35511 & 2	Dairy and milk products plant machinery and equipment and commercial food products machinery
*35513	Other industrial food products machinery, including parts and attachments for all types of industrial food products machinery
*35521	Textile machinery
*35522	Parts and attachments for textile machinery
*35530	Woodworking machinery, including parts and attachments
*35540	Paper industries machinery
*35551	Printing presses
*35552	Other printing trade machinery, including parts and attachments
*35592	Foundry machinery and equipment, excluding (patterns and molds)
35593	Plastics-working machinery and equipment, excluding patterns and molds
35594	Rubber-working machinery and equipment, excluding tire molds
35595	Other special industry machinery and equipment
35611	Industrial pumps, except hydraulic fluid power pumps
35612	Hydraulic fluid power pumps and motors and (vacuum pumps)
*35614	Air and gas compressors, except refrigeration compressors
*35615	Pumps and compressors, N.E.C., except refrigeration compressors
*35616	Parts and attachments for air and gas compressors
*35621	Ball bearings, complete
*35622	Taper (except thrust) roller bearings, complete
*35623	Other roller bearings, complete
35629	Parts and components for ball and roller bearings, including balls and rollers, sold separately
*35641	Industrial fans and blowers
*35661	Plain bearings
*35662	Speed changers, industrial high speed drives, and gears
*35663	Other mechanical power transmission equipment
35673	High frequency induction and dielectric heating equipment and parts, attachments and components
*35690	General industrial machinery, N.E.C.
*35720	Typewriters, including coding media, parts and attachments
*35731	Electronic computing equipment, except typewriters
*35732	Parts and attachments for electronic computing equipment
*35741	Calculating and accounting machines including cash registers, except parts and attachments
*35743	Parts and attachments for calculating accounting machines
35760	Scales and balances, except laboratory
*35791	Other complete office and store machines, N.E.C.
*35792	Parts and attachments for office and store machines, N.E.C.
35811	Automatic merchandising machines
36	Electrical equipment and supplies

SIC	Product description
*36111	Integrating instruments, elec. and test
36112	Equipment for testing electrical, radio and communication circuits and motors
36113	Other electrical measuring instruments
*36120	Transformers
*36130	Switchgear and switchboard apparatus
*36211	Fractional horsepower motors
*36212	Integral horsepower motors and generators, except for land transportation equipment
*36213	Land transportation motors, generators, and control equipment and parts
36214	Prime mover generator sets, except steam or hydraulic turbine
*36216	Parts and supplies for motors, generators, and motor—generator sets, except for land transportation equipment
*36220	General industry power circuit devices and controls
36231	Arc welding machines, components, and accessories, except electrodes
36232	Arc welding electrodes, metal
36233	Resistance welders, components, accessories, and electrodes
*36240	Carbon and graphite products
*36291	Capacitors for industrial use (except for electronic applications)
36292	Rectifying apparatus
*36310	Household cooking equipment
*36331	Household mechanical washing machines, dryers, and washer-dryer combinations
36332	Other household laundry equipment and parts
*36341	Electric fans, except industrial type
*36344	Parts and attachments for small household electrical appliances
*36350	Household vacuum cleaners, including parts and attachments
*36360	Sewing machines and parts, excluding cases and cabinets sold separately
*36393	Other household appliances and parts
*36410	Electric lamps (bulbs only) including sealed beam lamps
36424	Vehicular lighting equipment, electric
36426	Other lighting equipment, parts and accessories, electric and non-electric (incl. hand portable equipment)
*36430	Current carrying wiring devices
36442	Electrical conduit and conduit fittings
*36511	Household and automobile radios, and radio phonograph combinations
*36512	Household television receivers, including television combinations
*36514 *36515	Other audio equipment and accessories
*36610	Telephone and telegraph apparatus
*36621 & 7	Electronic communications equipment, except telephone
*36622	Radio and TV broadcast equipment and closed circuit systems
*36623	Intercommunication equipment (except telephone and telegraph) and electric alarm and signal systems and devices
*36624 & 8	Electronic Navigational aids
*36625	Electronic search and detection apparatus (include radar, infrared and sonar)
36626	Electronic Military, industrial, and commercial equipment, N.E.C.
36629	Microwave and mobile telephone communication equipment
*36792	Capacitors for electronic applications
*36793	Resistors for electronic applications
*36794	Coils, transformers, reactors and chokes for electronic applications
*36795	Other electronic components and accessories N.E.C.
*36930	X-ray apparatus and tubes
36941	Ignition harness and cable sets
36942	Battery charging generators and other complete electrical equipment for internal combustion engines
36943	Cranking motors
36944	Spark plugs
*36946	Engine electrical equipment components and parts
36990	Electrical equipment, N.E.C.
37	Transportation equipment
*37111	Passengers cars, knocked down or assembled
*37112	Trucks, truck tractors and truck chassis
*37113	Buses (except trolley buses), and fire department vehicles
*37140	Parts and Accessories for motor vehicles
*37150	Truck trailers
37212 & 3	Complete aircraft, personal, utility and commercial
37222	Aircraft engines, non-military
37224	Aircraft engine parts and accessories
37230	Aircraft propellers and parts
37291	Aircraft parts and accessories, N.E.C.
37321 & 2	Inboard and outboard motor boats
37323	All other Boats (sailboats, rowboats, canoes, etc.)
37510	Motorcycles, bicycles, and parts (imports only)
37910	Trailer coaches, housing type
37992	Other transportation equipment
38	Instruments and related products

SIC	Product description
*38111	Aeronautical nautical and navigational instruments and automatic pilots
*38112	Laboratory and scientific instruments
*38113	Surveying and drafting instruments and laboratory furniture
*38211	Aircraft engine instruments, except flight
*38214	Motor vehicle instruments, except electric
*38216	Other mechanical measuring and controlling instruments
*38220 & 38213	Automatic temperature controls and industrial process instruments
*38311	Optical instruments and lenses
*38410	Surgical and medical instruments and apparatus

*Denotes import category surveyed

Appendix B

STATISTICAL TABLES

Page
Table 1. U.S. Merchandise Trade Balance and Balance of Payments 91
Table 2. U.S. Exports and Imports of Selected Categories of Merchandise 92
Table 3. U.S. Exports of Selected Categories of Merchandise 93
Table 4. U.S. Exports of Merchandise by Country 94
Table 5. Total U.S. Exports and Exports Financed by Military and Economic Aid 94
Table 6. U.S. General Imports of Merchandise 95
Table 7. U.S. General Imports of Selected Categories of Manufactured Goods 95
Table 8. U.S. General Imports of Merchandise by Country or Area of Origin 96
Table 9. U.S. Foreign Trade Balance for Measurement-Standard Sensitive Products 97
Table 10. U.S. Export Summary of Measurement-Standard Sensitive Products 97
Table 11. U.S. Import Summary of Measurement-Standard Sensitive Products 99
Table 12. U.S. Exports of Measurement-Standard Sensitive Product Classes 101
Table 13. U.S. Imports of Measurement-Standard Sensitive Product Classes 149

Table 1. U.S. Merchandise Trade Balance and Balance of Payments (Liquidity Basis), 1950–69, in Billions of Dollars (— Indicates Deficit)

	Trade balance	Balance of payments
1950	1.1	−3.5
1951	3.1	−0.0[1]
1952	2.6	−1.2
1953	1.4	−2.2
1954	2.6	−1.5
1955	2.9	−1.2
1956	4.8	−1.0
1957	6.3	0.6
1958	3.5	−3.4
1959	1.1	−3.9
1960	4.9	−3.9
1961	5.6	−2.4
1962	4.6	−2.2
1963	5.2	−2.7
1964	6.8	−2.8
1965	5.0	−1.3
1966	3.9	−1.4
1967	3.9	−3.5
1968	0.6	0.2
1969	.7	−7.0

[1] Deficit of $8 million.

Source: *1970 Economic Report of the President*, pp. 276–7; *Survey of Current Business* March 1970, p. 27.

Table 2. U.S. Exports and Imports of Selected Categories of Merchandise, 1960–69, in Billions of Current Dollars

Year	Merchandise exports (Excludes reexports)				Merchandise imports (general)			
	Food, beverages, and tobacco	Crude materials and fuel	Manufactured goods	Total [1] [2]	Food, beverages, and tobacco	Crude materials and fuel	Manufactured goods	Total [1]
1960	3.2	3.9	12.6	19.4	3.4	4.4	6.9	15.1
1961	3.5	3.9	12.8	20.0	3.4	4.3	6.5	14.8
1962	3.7	3.4	13.7	20.7	3.7	4.7	7.6	16.5
1963	4.2	3.8	14.3	22.2	3.9	4.8	8.1	17.2
1964	4.6	4.3	16.5	25.5	4.0	5.0	9.1	18.7
1965	4.5	4.3	17.4	26.4	4.0	5.4	11.2	21.4
1966	5.2	4.4	19.2	29.0	4.6	5.7	14.4	25.6
1967	4.7	4.7	20.8	30.6	4.7	5.4	15.8	26.9
1968	4.6	4.9	23.8	33.6	5.4	6.0	20.6	33.2
1969	4.4	5.0	26.8	36.8	5.3	6.4	23.0	36.0

[1] Totals include commodities and transactions not classified according to kind.

[2] Totals exclude Department of Defense shipments of grant-aid military supplies and equipment under the Military Assistance Program.

Source: *1970 Economic Report of the President*, page 278; *Survey of Current Business*, July 1970, pp. S–22, S–23.

Table 3. U.S. Exports of Selected Categories of Domestic Merchandise, for Selected Years

(In Billions of Dollars)

	1960	1965	1968	1969
Food and live animals	2.7	4.0	3.9	3.7
Beverages and tobacco	0.5	0.5	0.7	0.7
Crude materials, inedible, except fuels	2.8	2.8	3.5	3.6
Mineral fuels and related materials	0.8	0.9	1.0	1.1
Animal and vegetable oils & fats	.3	.5	0.3	0.3
Chemicals	1.8	2.4	3.3	3.4
Machinery:				
Nonelectrical	3.4	5.3	6.6	7.2
Electrical	1.1	1.7	2.3	2.7
Transport Equipment	2.5	3.2	5.6	6.5
Other manufactured goods	3.8	4.9	6.1	7.0
Other transactions	0.7	1.0	0.9	1.2
All Products	20.4	27.2	34.2	37.4

Source: *1969 Statistical Abstract of the United States*, pp. 799–800; *Survey of Current Business*, July 1970.

Note: Total exports of silver ore and bullion included through 1965. Includes exports of certain military goods.

Table 4. U.S. Exports (Including Reexports) of Merchandise, by Country or Area of Destination, for Selected Years

(In Billions of Dollars)

	1960	1965	1968	1969
Total	20.6	27.5	34.6	38.0
Developed Countries [1]	13.2	18.4	23.6	26.4
Developing Countries [1]	7.1	9.0	10.8	11.3
Communist Areas in Europe and Asia	.2	.1	.2	.2
Western Hemisphere	7.7	9.9	13.4	14.7
Canada	3.8	5.6	8.1	9.1
Western Europe	7.2	9.2	11.2	12.4
European Economic Community	4.0	5.2	6.1	7.0
European Free Trade Association	2.5	2.8	3.9	4.0
Eastern Europe	.2	.1	.2	.2
Asia	4.2	6.0	7.6	8.3
Japan	1.4	2.1	3.0	3.5
Australia and Oceania	.5	1.0	1.0	1.0
Africa	.8	1.2	1.3	1.4

[1] Developed countries include Canada, Western Europe, Japan, Australia, New Zealand, and the Republic of South Africa; developing countries include rest of world excluding Communist areas in Europe and Asia.

Source: *1969 Statistical Abstract of the United States*, pp. 808–811; FT 990, *Highlights of U.S. Export and Import Trade*, December 1969, pp. 22–23.

Table 5. Total U.S. Exports and Exports Financed by Military and Economic Aid (Grants and Loans)

(In Billions of Dollars)

	1960	1965	1968	1969
Total exports	20.6	27.5	34.7	38.0
Exports financed under Foreign Assistance Act and Public Law 480[1]	2.7	3.2	2.8	2.7
Exports financed under foreign assistance programs as a percent of total exports	13	12	8	7

[1] Public Law 480 is concerned with agricultural aid.

Source: *1969 Statistical Abstract of the United States*, p. 796; *Overseas Business Reports*, June 1970, p. 10.

Table 6. U.S. General Imports of Merchandise, for Selected Years

(In Billions of Dollars)

	1960	1965	1968	1969
Food and live animals	3.0	3.5	4.6	4.5
Beverages and tobacco	0.4	0.6	0.8	0.8
Crude materials, inedible, except fuels	2.7	3.1	3.3	3.5
Mineral fuels and related materials	1.6	2.2	2.5	2.8
Animal and vegetable oils and fats	0.0	0.1	0.2	0.2
Chemicals	.8	.8	1.1	1.2
Machinery and transport equipment	1.5	2.9	8.0	9.8
Other manufactured goods	4.6	7.5	11.5	12.0
Other	0.4	0.7	1.2	1.3
Total [1]	15.1	21.4	33.2	36.0

[1] Because of rounding, totals may not equal sum of itemized entries.

Source: *Statistical Abstract of the United States*, 1969, pp. 801-2; U.S. Department of Commerce, *Highlights of U.S. Export and Import Trade*, FT 990, December 1969, pp. 76–78.

Table 7. U.S. General Imports of Selected Categories of Manufactured Goods, for Selected Years

(In Billions of Dollars)

	1960	1965	1968	1969
Automobiles and parts	0.6	0.8	3.7	4.6
Iron and steel	.5	1.2	2.0	1.8
Electrical machinery	.3	0.6	1.5	1.9
Nonelectric machinery	.4	1.2	2.3	2.5
Nonferrous base metals	.8	1.2	2.0	1.5

Source: *1969 Statistical Abstract of the United States*, pp. 801–2; *Survey of Current Business*, July 1970, p. S–23.

Table 8. U.S. General Imports of Merchandise, by Country or Area of Origin, for Selected Years

(In Billions of Dollars)

	1960	196[illegible]	1968	1969
Total	14.6	21.4	33.2	36.0
Developed Countries [1]	8.6	14.1	24.1	26.5
Developing Countries [1]	6.0	7.1	8.9	9.4
Communist Areas in Europe and Asia	0.0	0.1	0.2	0.2
Western Hemisphere	6.9	9.2	14.1	15.6
Canada	2.9	4.8	9.0	10.4
Western Europe	4.2	6.2	10.1	10.1
European Economic Community	2.3	3.3	5.9	5.8
European Free Trade Association	1.6	2.3	3.5	3.6
Eastern Europe	0.0	0.1	0.2	0.2
Asia	2.7	4.5	6.9	8.3
Japan	1.1	2.4	4.0	4.9
Australia and Oceania	0.3	0.4	0.7	0.8
Africa	.5	.9	1.1	1.0

[1] Developed countries include Canada, Western Europe, Japan, Australia, New Zealand, and the Republic of South Africa. Developing countries include the rest of the world except Communist areas in Eastern Europe and Asia.

Source: *1969 Statistical Abstract of the United States*, pp. 808–811; FT 990, *Highlights of U.S. Export and Import Trade*, December 1969, pp. 26–7.

Table 9. U.S. Foreign Trade Balance for Measurement-Standard Sensitive Products, 1965–69

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
	All product classes	7,878.2	7,356.5	7,376.6	6,680.7	6,822.0
	Canada	2,362.2	2,140.7	2,171.9	2,124.3	1,850.5
	EEC	302.4	(69.5)	284.0	118.3	490.3
	United Kingdom	164.4	179.8	134.8	24.0	126.4
	Japan	(478.3)	(319.3)	(129.3)	(227.8)	(61.5)
	All other	5,527.5	5,424.8	4,915.2	4,641.9	4,416.3
24	Lumber and wood products	(62.5)	(83.4)	(29.6)	(65.7)	(52.5)
30	Rubber and plastic products	23.4	23.3	19.5	18.6	13.6
33	Primary metal products	531.9	260.1	284.6	209.8	355.1
34	Fabricated metal products	425.2	416.5	432.8	509.1	404.8
35	Machinery, except electrical	4,422.8	3,897.8	3,947.5	3,795.8	3,842.4
36	Electrical machinery	1,101.9	1,011.9	1,011.1	846.6	863.8
37	Transportation equipment	972.7	1,419.5	1,280.4	980.1	1,066.8
38	Instruments and related products	462.8	410.8	430.3	386.4	328.0

( ) deficit.

Table 10. U.S. Export Summary of Measurement-Standard Sensitive Products, 1965–69

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
	All products	13,922.7	12,629.1	11,308.8	10,401.7	9.465.1
	Canada	3,027.5	2,700.5	2,589.0	2,479.0	2,103.9
	EEC	2,581.3	2,149.7	1,931.1	1,677.5	1,563.0
	United Kingdom	840.1	781.9	681.4	573.5	534.9
	Japan	883.2	712.9	559.3	464.7	434.1
	All other	6,590.6	6,284.1	5,548.0	5,207.0	4,829.2
24	Lumber and wood products	271.5	215.7	179.6	158.7	143.9
	Canada	69.7	56.8	55.9	54.2	49.6
	EEC	61.6	47.5	36.4	37.9	35.7
	United Kindgom	6.5	5.3	6.8	6.9	5.0
	Japan	66.9	49.8	31.3	13.4	8.5
	All other	66.8	56.3	49.2	46.3	45.1

Table 10. U.S. Export Summary of Measurement-Standard Sensitive Products, 1965–69—Continued

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
30	Rubber and plastic products	23.4	23.3	19.5	18.6	13.6
	Canada	5.9	6.1	5.8	4.3	3.6
	EEC	7.8	6.4	4.7	6.8	4.1
	United Kingdom	2.0	2.9	2.1	1.7	1.7
	Japan	1.2	0.9	0.8	0.4	0.2
	All other	6.5	7.0	6.1	5.4	4.0
33	Primary metal products	663.6	437.3	424.0	416.2	460.8
	Canada	217.2	147.6	154.0	153.5	165.0
	EEC	88.1	30.0	29.1	34.1	30.6
	United Kingdom	17.5	11.7	15.6	14.2	14.2
	Japan	11.8	6.0	6.0	4.5	4.2
	All other	329.0	242.0	219.3	209.9	246.8
34	Fabricated metal products	695.9	643.2	617.0	658.7	525.3
	Canada	176.7	166.7	162.7	169.7	134.9
	EEC	84.0	76.6	72.0	71.6	62.7
	United Kingdom	33.1	29.4	26.8	24.8	22.9
	Japan	63.4	36.9	19.0	24.9	20.9
	All other	338.7	333.6	836.5	367.7	283.9
35	Machinery, except electrical	6,282.6	5,491.9	5,262.5	4,907.1	4,625.8
	Canada	1,582.7	1,395.5	1,440.5	1,424.5	1,255.9
	EEC	1,098.0	866.1	803.5	723.2	668.4
	United Kingdom	388.3	347.2	350.5	298.7	289.8
	Japan	376.2	321.0	258.5	178.7	184.5
	All other	2,837.4	2.562.1	2,409.5	2,282.0	2,227.2
36	Electrical machinery	2,301.9	1,996.6	1,777.5	1,546.2	1,330.4
	Canada	526.8	434.6	412.6	387.9	294.7
	EEC	445.2	344.5	346.0	297.4	293.3
	United Kingdom	238.1	204.6	139.7	128.8	108.1
	Japan	117.4	96.9	87.1	58.6	50.9
	All other	974.4	916.0	792.1	673.5	583.4
37	Transportation equipment	3,044.1	3,257.0	2,472.0	2,200.5	1,946.0
	Canada	293.2	358.7	231.9	167.6	102.0
	EEC	657.4	655.1	504.3	384.1	363.5
	United Kingdom	101.0	128.3	84.9	55.1	54.6
	Japan	189.8	159.3	116.2	146.7	137.7
	All other	1,802.7	1,955.6	1,534.7	1,447.0	1,288.2

Table 10. U.S. Export Summary of Measurement-Standard Sensitive Products, 1965–69—Continued

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
38	Instruments and related products	639.7	564.1	556.7	495.7	419.3
	Canada	155.3	134.5	125.6	117.3	98.2
	EEC	139.2	123.5	135.1	122.4	104.7
	United Kingdom	53.6	52.5	55.0	43.3	38.6
	Japan	56.5	42.1	40.4	37.5	27.2
	All other	235.1	211.5	200.6	175.2	150.6

Table 11. U.S. Import Summary of Measurement-Standard Sensitive Products, 1965–69

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
	All products	6,044.5	5,272.6	3,932.2	3,721.0	2,643.1
	Canada	665.3	559.8	417.1	354.7	253.4
	EEC	2,278.9	2,219.2	1,647.1	1,559.2	1,072.7
	United Kingdom	675.7	602.1	546.6	549.5	408.5
	Japan	1,361.5	1,032.2	688.6	692.5	495.6
	All other	1,063.1	859.3	632.8	565.1	412.9
24	Wood and lumber products	334.0	299.1	209.2	224.4	196.4
	Canada	39.4	41.4	38.2	42.4	41.8
	EEC	4.9	4.3	3.6	3.0	2.9
	United Kingdom	0.4	0.5	0.2	0.3	0.2
	Japan	72.4	73.5	49.1	57.1	51.4
	All other	216.9	179.4	118.1	121.6	100.1
33	Primary metal products	131.7	177.2	139.4	206.4	105.7
	Canada	26.4	44.1	30.9	35.0	11.5
	EEC	50.2	70.7	67.6	104.9	57.9
	United Kingdom	4.0	8.8	8.1	13.3	5.4
	Japan	30.9	25.6	14.6	29.8	16.4
	All other	20.2	28.0	18.2	23.4	14.5

Table 11. U.S. Import Summary of Measurement-Standard Sensitive Products, 1965–69—Continued

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
34	Fabricated metal products	270.7	226.7	184.2	149.6	120.5
	Canada	51.4	40.5	23.8	20.1	13.4
	EEC	61.5	55.1	53.3	40.5	34.9
	United Kingdom	16.4	16.2	12.5	11.0	9.4
	Japan	102.2	85.0	74.1	62.0	50.2
	All other	39.2	29.9	20.5	16.0	12.6
35	Machinery, except electrical	1,859.8	1,594.1	1,315.0	1,111.3	783.4
	Canada	276.7	194.0	171.6	143.6	103.6
	EEC	727.1	685.9	560.6	478.7	341.4
	United Kingdom	264.9	243.3	233.5	222.6	162.6
	Japan	298.0	227.4	139.2	90.3	49.5
	All other	293.1	243.5	210.1	176.1	126.3
36	Electrical machinery	1,200.0	984.7	766.4	699.6	466.6
	Canada	220.2	195.0	131.1	102.6	62.0
	EEC	233.2	209.2	193.6	157.0	104.7
	United Kingdom	118.7	103.7	95.6	97.2	73.4
	Japan	282.8	242.1	195.5	208.5	147.0
	All other	345.1	234.7	150.6	134.3	79.5
37	Transportation equipment	2,071.4	1,837.5	1,191.6	1,220.4	879.2
	Canada	34.2	30.8	13.5	6.5	12.4
	EEC	1,149.3	1,249.0	729.3	740.3	502.1
	United Kingdom	256.8	217.5	184.6	194.9	149.4
	Japan	502.7	314.8	165.9	198.7	146.3
	All other	128.4	125.4	98.3	80.0	69.0
38	Instruments and related products	176.9	153.3	126.4	109.3	91.3
	Canada	17.0	14.0	8.0	4.5	8.7
	EEC	52.7	45.0	39.1	34.8	28.8
	United Kingdom	14.5	11.9	12.1	10.2	8.1
	Japan	72.5	63.8	50.2	46.1	34.8
	All other	20.2	18.6	17.0	13.7	10.9

Table 12. U.S. Exports of Measurement-Standard Sensitive Product Classes, 1965–69

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
24210	Sawmill and planing mill products, n.e.c.	207.3	172.9	141.7	126.5	113.9
	Canada	42.2	37.8	39.8	39.8	36.1
	EEC	50.6	41.0	31.8	33.3	30.6
	United Kingdom	3.3	3.3	3.3	3.4	2.8
	Japan	65.9	49.3	30.6	12.8	8.1
	All other	45.3	41.5	36.2	37.2	36.3
24261	Hardwood flooring	1.8	1.6	1.6	1.8	1.6
	Canada	1.1	1.2	1.2	1.2	1.1
	EEC	(1)	(1)	(1)	(1)	(1)
	United Kingdom	(1)	0.1	0.2	0.1	0.2
	Japan	0.5	(1)	(1)	(1)	(1)
	All other	0.2	0.3	0.2	0.5	0.3
24262	Hardwood dimension stock	3.7	3.8	4.6	4.4	4.9
	Canada	1.1	0.9	1.0	0.9	1.0
	EEC	0.4	0.4	0.5	0.6	0.8
	United Kingdom	0.8	0.8	1.1	1.0	1.1
	Japan	0.2	0.2	0.1	0.2	0.2
	All other	1.2	1.5	1.9	1.7	1.8
24311 24312	Wood windows and sash	1.6	1.8	1.7	1.5	1.8
	Canada	1.4	1.5	1.5	1.3	1.7
	EEC	(1)	(1)	(1)	(1)	(1)
	United Kingdom	—	(1)	na	na	na
	Japan	—	(1)	(1)	(1)	(1)
	All other	0.2	0.3	0.2	0.2	0.1
24314 24315	Wood doors	2.6	2.5	2.4	2.0	1.6
	Canada	0.8	0.9	0.9	0.8	0.6
	EEC	(1)	0.1	0.1	(1)	(1)
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	1.8	1.5	1.4	1.2	1.0

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
24313 24317 24318	Millwork products, n.e.c.	3.3	2.9	2.1	1.3	1.5
	Canada	0.7	0.6	0.6	0.4	0.6
	EEC	(1)	(1)	(1)	(1)	(1)
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	2.6	2.3	1.5	0.9	0.9
24320	Veneer and plywood	42.4	23.2	19.0	15.8	14.7
	Canada	16.1	9.7	7.3	7.1	6.4
	EEC	9.3	4.9	2.6	2.7	3.3
	United Kingdom	2.3	1.0	2.0	2.2	0.7
	Japan	0.3	0.3	0.6	0.3	0.2
	All other	14.4	7.3	6.5	3.5	4.1
24992	Pallets and skids	2.9	2.5	2.5	1.9	1.3
	Canada	2.4	2.0	1.8	1.4	1.0
	EEC	0.2	0.1	0.3	0.1	0.2
	United Kingdom	(1)	(1)	0.1	(1)	(1)
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	0.3	0.4	0.3	0.4	0.1
24993	Particleboard	2.2	1.0	0.9	0.2	0.1
	Canada	2.0	0.8	0.7	0.1	0.1
	EEC	(1)	(1)	(1)	—	(1)
	United Kingdom	—	—	(1)	(1)	na
	Japan	—	—	—	—	na
	All other	0.2	0.2	0.2	0.1	—
24996	Hard pressed wood fiberboard	3.7	3.5	3.1	3.3	2.5
	Canada	1.9	1.4	1.1	1.2	1.0
	EEC	1.1	1.0	1.1	1.2	0.8
	United Kingdom	0.1	0.1	0.1	0.2	0.2
	Japan	(1)	(1)	(1)	0.1	(1)
	All other	0.6	1.0	0.8	0.6	0.5

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
30793	Plastic laminated shapes	16.0	16.0	12.7	13.2	9.6
	Canada	2.7	3.0	2.8	1.9	1.8
	EEC	7.0	5.7	4.0	6.3	3.6
	United Kingdom	1.8	2.7	1.9	1.5	1.6
	Japan	1.1	0.8	0.8	0.3	0.1
	All other	3.4	3.8	3.2	3.2	2.5
30795	Industrial plastic products	0.8	0.6	0.5	0.6	0.5
	Canada	0.3	0.2	0.2	0.3	0.3
	EEC	0.2	0.1	0.2	0.1	0.1
	United Kingdom	0.1	(1)	(1)	(1)	(1)
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	0.2	0.3	0.1	0.2	0.1
30796	Construction plastic products	6.6	6.7	6.3	4.8	3.5
	Canada	2.9	2.9	2.8	2.1	1.5
	EEC	0.6	0.6	0.5	0.4	0.4
	United Kingdom	0.1	0.2	0.2	0.2	0.1
	Japan	0.1	0.1	(1)	0.1	0.1
	All other	2.9	2.9	2.8	2.0	1.4
33123	Hot-rolled sheet and strip	182.6	113.4	112.7	100.4	129.5
	Canada	24.5	18.4	19.1	20.9	29.2
	EEC	48.9	9.5	6.6	9.2	7.6
	United Kingdom	1.0	1.1	1.4	1.7	1.7
	Japan	0.2	0.2	0.3	0.2	0.2
	All other	108.0	84.2	85.3	68.4	90.8
33124	Hot-rolled plate, structural shapes and bars	117.4	57.5	56.2	64.2	95.7
	Canada	59.2	25.8	27.6	34.8	51.7
	EEC	8.1	1.6	1.6	1.8	2.6
	United Kingdom	3.8	1.6	2.8	1.5	1.2
	Japan	0.6	0.4	0.4	0.3	1.0
	All other	45.7	28.1	23.8	25.8	39.2

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
33126 33176	Steel pipe and tube	122.0	108.2	101.6	109.4	93.5
	Canada	37.7	30.0	28.9	30.7	24.6
	EEC	3.1	2.5	4.3	4.8	4.0
	United Kingdom	1.7	2.8	4.5	5.2	6.2
	Japan	5.6	0.9	1.0	1.5	0.7
	All other	73.9	72.0	62.9	67.2	58.0
33127 33167	Cold-rolled steel sheets and strip	103.0	46.7	46.9	46.5	59.9
	Canada	26.2	14.3	18.1	17.7	18.7
	EEC	13.1	4.5	6.4	5.9	7.7
	United Kingdom	4.8	1.9	3.4	2.8	2.2
	Japan	0.8	0.5	0.7	0.3	0.3
	All other	58.1	25.5	18.3	19.8	31.0
33128 33168	Cold finished bars and shapes	15.1	11.9	9.5	6.9	8.6
	Canada	7.9	6.0	4.7	2.9	2.7
	EEC	0.8	0.6	0.6	0.6	0.8
	United Kingdom	0.3	0.3	0.2	0.3	0.2
	Japan	0.6	0.6	0.3	(1)	0.1
	All other	5.5	4.4	3.7	3.1	4.8
33512	Copper mill shapes	23.9	16.0	18.8	17.5	21.5
	Canada	8.2	4.1	4.8	4.6	9.1
	EEC	4.6	3.3	2.1	2.8	2.0
	United Kingdom	0.7	0.7	0.6	0.6	1.0
	Japan	0.6	0.5	0.6	0.4	0.6
	All other	9.8	7.4	10.7	9.1	8.8
33522	Aluminum plate and shapes	82.2	68.4	62.6	56.3	41.3
	Canada	49.9	45.4	46.1	36.7	27.0
	EEC	7.7	6.3	5.3	8.0	5.3
	United Kingdom	4.4	2.7	2.0	1.1	1.3
	Japan	2.9	1.9	1.9	1.5	1.0
	All other	17.3	12.1	7.3	9.0	6.7

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
33524 33525	Aluminum bars, rods, structural shapes, rolled or extruded	17.4	15.2	15.7	15.0	10.8
	Canada	3.6	3.6	4.7	5.2	2.0
	EEC	1.8	1.7	2.2	1.0	0.6
	United Kingdom	0.8	0.6	0.7	1.0	0.4
	Japan	0.5	1.0	0.8	0.3	0.3
	All other	10.7	8.3	7.3	7.5	7.5
34231 34233	Hand tools, n.e.c.	81.8	73.3	72.2	69.5	61.7
	Canada	22.5	18.7	18.6	19.9	17.9
	EEC	14.2	12.1	10.4	9.3	8.6
	United Kingdom	3.9	5.2	4.2	2.9	2.5
	Japan	2.6	2.1	1.9	1.5	1.1
	All other	38.6	35.2	37.1	35.9	31.6
34320	Plumbing fixture fittings and trim (brass goods)	12.7	11.3	11.0	9.9	8.2
	Canada	4.2	4.4	4.5	3.7	3.0
	EEC	1.3	0.9	0.6	0.4	0.5
	United Kingdom	0.1	0.2	0.2	0.2	0.1
	Japan	0.1	(1)	(1)	(1)	0.1
	All other	7.0	5.8	5.7	5.6	4.5
34332	Warm air furnaces	3.2	2.2	2.7	2.5	2.3
	Canada	2.1	1.7	2.0	2.1	1.6
	EEC	0.1	0.3	0.3	0.2	0.5
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	0.6	0.1	0.2	(1)	(1)
	All other	0.4	0.1	0.2	0.2	0.2
34333	Cast iron heating boilers, radiators, and convectors, (except parts)	2.6	2.7	2.3	1.5	1.5
	Canada	1.7	1.9	1.6	1.1	1.1
	EEC	0.5	0.3	0.3	0.1	0.2
	United Kingdom	(1)	(1)	0.1	(1)	(1)
	Japan	(1)	0.2	0.1	(1)	(1)
	All other	0.4	0.3	0.2	0.3	0.2

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
34331 34336	Oil burners & other equipment and parts, n.e.c.	39.3	37.0	32.8	40.2	35.9
	Canada	11.6	10.4	10.2	12.5	10.3
	EEC	9.1	8.0	6.3	9.0	7.9
	United Kingdom	1.6	1.0	1.3	1.7	1.3
	Japan	4.0	4.5	3.3	2.5	1.9
	All other	13.0	13.1	11.7	14.5	14.5
34335	Steel heating boilers	0.8	0.4	0.3	0.4	0.3
	Canada	0.3	0.2	0.2	0.1	0.2
	EEC	(1)	(1)	(1)	—	(1)
	United Kingdom	—	(1)	na	(1)	na
	Japan	—	(1)	(1)	(1)	(1)
	All other	0.5	0.2	0.1	0.3	0.1
34334	Domestic heating stoves, exc. elec.	2.1	2.1	2.0	2.0	3.0
	Canada	1.0	1.1	1.2	1.0	1.1
	EEC	0.1	0.2	0.2	0.1	0.5
	United Kingdom	(1)	0.1	(1)	(1)	0.1
	Japan	0.4	0.3	0.1	0.6	0.8
	All other	0.6	0.4	0.5	0.3	0.5
34410	Fabricated structural iron and steel	48.0	25.9	35.7	67.8	42.6
	Canada	2.6	2.7	2.1	4.5	2.2
	EEC	1.6	2.5	2.3	1.9	1.2
	United Kingdom	7.1	0.3	1.1	0.5	1.7
	Japan	0.2	0.3	0.2	0.4	1.6
	All other	36.5	20.1	30.0	60.5	35.9
34420	Metal doors, sash, frames, molding and trim	11.2	10.7	10.6	11.2	[illegible]
	Canada	2.0	3.2	2.8	2.9	2.7
	EEC	0.3	0.3	0.4	0.5	0.5
	United Kingdom	0.2	0.3	0.5	0.4	0.2
	Japan	0.1	0.1	0.1	0.1	0.2
	All other	8.6	6.8	6.8	7.3	5.7

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
34492	Prefabricated and portable metal buildings and parts	15.5	12.0	10.2	7.9	7.8
	Canada	1.6	1.1	0.5	0.4	0.5
	EEC	0.7	0.9	0.9	0.7	0.5
	United Kingdom	(1)	0.1	0.2	0.2	0.1
	Japan	0.1	0.2	0.1	(1)	0.1
	All other	13.1	9.7	8.5	6.6	6.6
34493	Miscellaneous metal building materials and curtain wall	22.7	22.8	23.7	23.4	18.0
	Canada	7.6	6.2	6.8	8.0	5.5
	EEC	1.5	1.2	0.9	0.9	(1)
	United Kingdom	0.7	0.6	0.7	0.4	1.7
	Japan	0.1	(1)	0.1	0.1	0.2
	All other	12.8	14.8	15.2	14.0	10.6
34431 34433	Heat exchangers and steam condensers, steel power boilers, parts and attachments (over 15 PSI)	122.5	122.1	114.4	136.0	93.6
	Canada	8.7	10.2	7.9	10.2	8.2
	EEC	8.2	8.3	8.4	14.0	11.9
	United Kingdom	1.8	3.6	2.2	3.0	2.0
	Japan	37.1	16.3	3.8	13.1	8.0
	All other	66.7	83.7	92.1	95.7	63.5
34432	Fabricated steel plate, including stacks and weldments	6.2	5.3	6.5	5.2	4.7
	Canada	2.6	2.5	3.4	2.1	1.5
	EEC	0.6	0.8	1.7	0.4	0.2
	United Kingdom	(1)	0.1	(1)	(1)	0.1
	Japan	0.1	0.1	0.1	0.1	(1)
	All other	2.9	1.8	1.3	2.6	2.9
34434	Gas cylinders	8.7	8.4	9.4	9.9	10.4
	Canada	3.1	2.3	2.8	3.1	4.0
	EEC	0.5	0.8	0.7	0.5	0.3
	United Kingdom	0.2	0.6	0.6	0.3	0.4
	Japan	0.4	0.3	0.2	(1)	0.1
	All other	4.5	4.4	5.1	6.0	5.6

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
34435 34437 34439	Metal tanks	21.8	25.2	21.2	28.0	20.4
	Canada	2.7	3.8	2.6	6.6	5.0
	EEC	3.9	2.3	1.8	0.8	1.0
	United Kingdom	0.9	0.7	0.5	1.6	1.7
	Japan	0.3	0.9	2.0	0.7	0.9
	All other	14.0	17.5	14.3	18.3	11.8
34440	Sheet metal products	9.7	10.2	7.9	8.7	8.4
	Canada	3.0	2.3	2.4	1.7	0.9
	EEC	0.3	0.2	0.2	0.2	0.3
	United Kingdom	0.2	(1)	0.1	0.1	0.5
	Japan	0.4	0.1	0.2	(1)	(1)
	All other	5.8	7.6	5.0	6.7	6.7
34521	Industrial fasteners (bolts and nuts)	68.4	63.4	55.8	49.3	36.6
	Canada	43.1	36.2	32.5	31.6	21.4
	EEC	7.8	8.6	7.3	4.0	3.0
	United Kingdom	3.4	3.7	3.3	2.8	1.8
	Japan	1.7	1.0	0.8	0.4	0.3
	All other	12.4	13.9	11.9	10.5	10.1
3491 3496	Metal shipping barrels, drums, kegs, pails and collapsible tubes	3.9	2.6	3.9	5.8	5.4
	Canada	1.2	0.9	1.3	1.6	1.9
	EEC	0.6	0.5	0.6	0.7	1.7
	United Kingdom	0.1	0.1	0.1	0.1	0.2
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	2.0	1.1	1.9	3.4	1.6
34941	Automatic regulating and control valves	122.9	124.7	115.5	105.1	91.5
	Canada	26.2	29.8	31.7	30.5	24.4
	EEC	19.6	17.4	18.6	15.8	15.5
	United Kingdom	7.8	7.7	6.3	6.0	4.4
	Japan	10.0	6.7	3.4	4.1	4.4
	All other	59.3	63.1	55.5	48.7	42.8

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
34943	Plumbing and heating valves except plumbers' brass goods	3.5	3.7	3.7	3.9	2.8
	Canada	1.2	1.1	1.2	1.5	1.1
	EEC	0.6	0.5	0.5	0.7	0.5
	United Kingdom	0.1	0.1	0.2	0.2	0.1
	Japan	0.2	0.3	0.2	0.1	0.1
	All other	1.4	1.7	1.6	1.4	1.0
34944	Other metal valves, except plumbers' brass goods	15.1	12.7	10.9	10.3	8.3
	Canada	4.7	4.7	4.7	4.6	3.6
	EEC	4.2	3.4	2.3	2.6	1.7
	United Kingdom	1.5	1.1	1.2	0.8	0.8
	Japan	2.7	1.4	0.9	0.5	0.4
	All other	2.0	2.1	1.8	1.8	1.8
34945 34946	Metal fittings and unions for pipe systems	73.3	64.5	64.3	60.2	52.6
	Canada	23.0	21.3	21.7	20.0	16.8
	EEC	8.3	7.1	7.3	8.8	6.2
	United Kingdom	3.5	3.9	4.0	3.6	3.2
	Japan	2.3	2.0	1.3	0.7	0.7
	All other	36.2	30.2	30.0	27.1	25.7
35191 35192	Gasoline engines except outboard aircraft and automotive engines	57.9	46.6	43.1	45.6	40.6
	Canada	15.2	13.6	13.5	13.5	10.0
	EEC	6.6	4.4	4.3	4.7	2.9
	United Kingdom	2.6	2.4	2.1	2.1	1.8
	Japan	1.2	0.5	0.5	0.3	6.5
	All other	32.3	25.7	22.7	25.0	19.4
35193	Diesel and semidiesel engines except automotive	89.8	87.8	84.0	78.6	82.9
	Canada	28.7	18.1	19.3	22.5	19.4
	EEC	11.7	13.0	11.6	10.9	11.6
	United Kingdom	5.5	6.3	4.2	3.5	2.9
	Japan	5.1	3.4	3.7	2.0	2.1
	All other	38.8	47.0	45.2	39.7	46.9

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35194	Diesel and semidiesel engines automotive	24.7	22.5	16.8	16.2	20.7
	Canada	11.7	7.7	5.4	6.5	4.2
	EEC	3.0	3.2	3.0	2.1	2.0
	United Kingdom	0.1	0.1	0.4	0.3	1.4
	Japan	(1)	0.1	(1)	(1)	(1)
	All other	9.9	11.4	8.0	7.3	13.1
35195	Outboard motors	23.1	23.2	19.6	23.7	17.8
	Canada	0.1	0.2	2.6	3.4	2.4
	EEC	4.2	4.5	4.1	5.1	4.0
	United Kingdom	0.9	1.4	0.8	0.6	0.4
	Japan	1.1	0.7	0.5	0.3	0.6
	All other	16.8	16.4	11.6	14.3	10.4
35196	Gas engines, except gas turbines	1.4	1.5	3.9	1.3	1.0
	Canada	0.8	0.6	0.3	0.3	0.5
	EEC	(1)	(1)	(1)	(1)	(1)
	United Kingdom	(1)	—	0.2	—	(1)
	Japan	—	(1)	—	—	(1)
	All other	0.6	0.9	2.4	1.0	0.5
35197	Internal combustion engines, n.e.c	1.8	2.1	2.3	3.0	3.6
	Canada	0.6	0.4	0.4	0.4	0.5
	EEC	0.2	0.2	0.2	0.4	0.7
	United Kingdom	(1)	0.1	0.1	(1)	(1)
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	1.0	1.4	1.6	2.2	2.4
35199	Parts and accessories, n.e.c. for internal combustion engines	213.1	193.3	182.8	162.3	233.6
	Canada	55.1	52.0	55.1	49.0	81.5
	EEC	34.3	24.0	18.9	18.6	23.1
	United Kingdom	3.6	3.4	4.1	3.0	7.2
	Japan	2.7	2.1	2.7	2.0	2.1
	All other	117.4	111.8	102.0	89.7	119.7

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35221	Wheel tractors, excluding garden tractors and parts.....	103.3	115.5	137.0	134.5	137.6
	Canada..................	50.8	70.8	96.0	102.6	83.9
	EEC.....................	5.2	2.0	2.6	3.6	4.5
	United Kingdom..........	(1)	0.7	0.3	0.7	0.9
	Japan....................	(1)	0.1	0.2	0.2	0.6
	All other................	47.3	41.9	37.9	27.4	47.7
35223 part	Planting, seeding, and fertilizing machinery, except parts......	13.7	16.0	15.7	13.5	12.8
	Canada..................	10.2	12.2	9.4	10.2	9.4
	EEC.....................	0.4	0.3	0.1	0.2	0.2
	United Kingdom..........	0.1	(1)	0.1	0.1	0.1
	Japan....................	0.1	(1)	0.1	(1)	0.1
	All other................	2.9	3.5	6.0	3.0	3.0
35224 part	Plows, listers, harrows, pulverizers and stalkcutters.........	14.7	18.2	21.7	19.6	19.5
	Canada..................	7.2	10.5	14.5	13.0	11.2
	EEC.....................	0.4	0.4	0.3	0.4	0.2
	United Kingdom..........	0.1	0.1	0.1	0.1	0.1
	Japan....................	(1)	(1)	0.1	(1)	(1)
	All other................	7.0	7.2	6.7	6.1	8.0
35225 part	Harvesting machinery, excl. parts.......................	49.5	52.8	70.3	73.2	71.8
	Canada..................	30.0	28.2	45.7	53.0	42.6
	EEC.....................	2.1	1.4	1.6	1.4	2.2
	United Kingdom..........	0.2	0.2	0.9	0.6	0.3
	Japan....................	0.2	0.1	0.1	0.3	0.1
	All other................	17.0	22.9	22.0	17.9	26.6
35226	Haying machinery and mowers, except lawn mowers and parts.	14.9	17.0	21.2	20.3	18.5
	Canada..................	10.1	11.9	16.2	14.4	12.9
	EEC.....................	0.3	0.5	0.5	0.7	0.5
	United Kingdom..........	(1)	(1)	0.1	0.3	0.1
	Japan....................	0.3	0.2	0.1	0.1	0.1
	All other................	4.2	4.4	4.3	4.8	4.9

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35227	Lawn mowers, excluding parts	9.4	9.9	10.2	9.1	7.7
	Canada	3.0	2.3	2.5	2.6	1.9
	EEC	3.9	4.0	4.2	3.7	3.4
	United Kingdom	0.2	0.4	0.3	0.2	0.1
	Japan	0.1	(1)	(1)	(1)	(1)
	All other	2.2	3.2	3.2	2.6	2.3
35228 35229	Other farm machinery equipment and parts	224.2	192.7	181.9	184.9	172.4
	Canada	105.9	97.4	96.6	96.8	81.5
	EEC	38.9	27.1	20.5	23.7	21.6
	United Kingdom	13.2	10.5	10.8	13.2	17.2
	Japan	4.4	3.4	2.5	2.4	1.1
	All other	61.8	54.3	51.5	48.8	51.0
35311	Contractors' off-highway wheel tractors	62.4	48.9	44.5	49.9	53.8
	Canada	6.8	5.9	6.7	9.7	10.4
	EEC	6.0	4.6	5.6	6.1	5.9
	United Kingdom	3.2	0.7	2.7	1.5	1.6
	Japan	3.8	1.6	0.6	0.2	0.4
	All other	42.6	36.1	28.9	32.4	35.5
35312	Tracklaying type tractors	240.5	225.2	176.8	193.9	208.7
	Canada	42.8	35.2	33.5	38.3	43.2
	EEC	16.9	18.8	12.4	13.0	20.3
	United Kingdom	1.8	1.9	2.8	1.8	3.9
	Japan	10.4	7.8	9.5	4.1	1.2
	All other	168.6	161.5	118.6	136.7	140.1
35316	Mixers, pavers, and related equipment	15.4	14.2	15.3	17.6	17.7
	Canada	2.7	3.0	3.6	4.1	6.1
	EEC	0.7	0.4	0.6	0.9	0.7
	United Kingdom	0.2	0.2	0.2	0.1	0.2
	Japan	0.3	1.0	1.8	1.9	0.5
	All other	11.5	9.6	9.1	10.6	10.2

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35313	Parts and attachments for track-laying and contractors' off-highway wheel tractors and shovel-loaders	278.1	252.9	228.4	221.4	213.2
	Canada	62.4	51.0	50.9	55.3	47.2
	EEC	83.5	66.0	51.5	38.2	35.3
	United Kingdom	13.9	16.3	13.8	16.8	16.3
	Japan	10.5	8.3	6.8	3.4	2.5
	All other	107.8	111.3	105.4	107.7	111.9
35314	Power cranes, draglines, shovels and parts	195.2	165.8	183.6	150.6	142.3
	Canada	48.0	38.3	43.6	40.0	39.3
	EEC	21.2	18.0	17.6	15.5	12.0
	United Kingdom	4.3	9.4	7.9	3.3	3.6
	Japan	2.0	1.4	1.7	2.7	1.5
	All other	119.7	98.7	112.8	89.1	85.9
35317	Tractor shovel-loaders, except parts and attachments	162.7	146.8	135.1	130.8	132.2
	Canada	34.8	24.2	22.7	21.2	19.1
	EEC	26.0	23.2	22.1	23.6	29.0
	United Kingdom	4.0	6.7	7.1	3.4	5.7
	Japan	2.3	1.4	2.4	2.4	0.6
	All other	95.6	91.3	80.8	80.2	77.8
35318	Scrapers, graders, off-highway trucks and parts	181.8	182.3	163.7	145.5	144.9
	Canada	33.0	32.3	30.6	30.7	30.6
	EEC	19.8	14.6	12.1	10.9	13.6
	United Kingdom	2.7	1.8	5.3	2.9	1.7
	Japan	5.8	3.4	2.6	2.2	0.4
	All other	120.5	130.2	113.1	98.8	98.6
35319	Other construction machinery and equipment and parts	157.1	138.8	134.6	139.1	142.1
	Canada	46.2	42.4	41.8	42.5	40.5
	EEC	28.5	14.2	14.9	13.5	15.3
	United Kingdom	5.3	6.2	5.3	6.0	6.9
	Japan	3.7	3.3	3.1	2.6	2.6
	All other	73.4	72.7	69.5	74.5	76.8

[1] Less than \$0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35321	Underground and mining machinery and equipment....	18.7	22.7	17.0	19.1	19.4
	Canada..................	9.3	10.4	6.0	5.2	3.8
	EEC.....................	0.8	0.6	1.1	1.2	2.5
	United Kingdom..........	0.4	0.3	0.5	0.3	0.3
	Japan....................	(1)	0.3	0.2	0.1	0.3
	All other.................	8.2	11.1	9.2	12.3	12.5
35322	Crushing, pulverizing and screening plants, stationary...	17.2	10.5	11.9	10.1	9.3
	Canada..................	3.1	1.8	2.2	2.5	1.3
	EEC.....................	0.4	0.2	0.4	0.2	0.2
	United Kingdom..........	0.1	(1)	(1)	0.1	0.1
	Japan....................	0.1	(1)	0.1	(1)	0.1
	All other.................	13.5	8.5	9.2	7.3	7.6
35323	All other mining machinery and equipment..............	39.5	26.7	19.1	20.9	18.8
	Canada..................	12.4	8.8	4.1	5.5	4.8
	EEC.....................	3.1	1.3	2.0	1.3	1.6
	United Kingdom..........	0.4	0.4	1.0	1.0	0.4
	Japan....................	0.4	0.4	0.2	0.5	0.2
	All other.................	23.2	15.8	11.8	12.6	11.8
35324	Parts and attachments for mining machinery and equipment.	82.7	67.8	60.1	51.9	46.2
	Canada..................	17.5	14.0	13.2	13.3	11.5
	EEC.....................	6.2	4.1	3.5	3.7	2.8
	United Kingdom..........	2.4	1.5	1.4	1.7	1.0
	Japan....................	2.8	2.7	0.2	0.2	0.3
	All other.................	53.8	45.5	41.8	33.0	30.6
35340	Elevators and moving stairways.	11.3	9.2	7.8	8.8	8.3
	Canada..................	6.3	4.2	3.8	3.7	4.1
	EEC.....................	0.5	0.4	0.4	0.4	0.4
	United Kingdom..........	0.5	0.2	0.3	0.4	0.4
	Japan....................	0.1	0.1	0.1	(1)	0.3
	All other.................	3.9	4.3	3.2	4.3	3.1

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35350	Conveying equipment	43.8	36.4	37.4	40.7	36.3
	Canada	9.8	9.4	10.5	9.7	7.9
	EEC	2.8	2.4	3.1	3.6	3.2
	United Kingdom	0.6	0.6	0.8	0.8	1.2
	Japan	1.1	1.0	1.0	0.5	0.7
	All other	29.5	23.0	22.0	26.1	23.3
35361	Hoists	14.8	12.7	14.1	14.7	12.4
	Canada	4.3	3.4	3.9	4.0	4.2
	EEC	1.3	1.0	1.7	1.0	0.6
	United Kingdom	0.3	0.6	0.7	0.3	0.2
	Japan	0.6	0.2	0.1	0.5	0.4
	All other	8.3	7.5	7.7	8.9	7.0
35362	Overhead traveling cranes and monorail systems	7.3	4.9	3.8	6.7	5.6
	Canada	2.2	1.1	1.3	1.8	0.6
	EEC	0.2	0.3	0.1	—	0.9
	United Kingdom	(1)	(1)	(1)	(1)	0.1
	Japan	(1)	0.1	(1)	—	(1)
	All other	4.9	3.4	2.4	4.9	4.0
35370	Industrial trucks and tractors	96.5	74.2	73.1	68.1	65.9
	Canada	30.0	22.4	26.8	19.6	23.2
	EEC	18.7	10.3	7.8	8.6	7.8
	United Kingdom	6.8	4.5	4.0	4.0	3.0
	Japan	0.5	0.4	0.3	0.2	0.6
	All other	40.5	36.6	34.2	35.7	31.3
35411	Boring machines (metal cutting machine tools)	11.7	14.4	13.0	12.1	12.0
	Canada	2.1	2.5	3.4	3.5	3.1
	EEC	2.1	1.8	3.1	1.6	1.3
	United Kingdom	0.7	1.4	2.5	1.9	1.4
	Japan	3.8	3.5	0.4	0.5	0.3
	All other	3.0	5.2	3.6	4.6	5.9

(1) Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35412	Drilling machines (metal cutting machine tools)	9.5	6.7	10.8	6.2	8.6
	Canada	1.5	1.1	2.0	1.5	1.6
	EEC	2.4	1.2	1.8	1.5	1.2
	United Kingdom	1.3	1.2	0.8	0.7	1.1
	Japan	1.4	1.0	0.2	0.1	0.2
	All other	2.9	2.2	6.0	2.4	4.5
35413	Gear-cutting and finishing machines	24.4	26.6	23.7	15.8	16.0
	Canada	0.4	1.3	2.1	0.9	1.9
	EEC	5.5	3.6	5.4	3.4	4.8
	United Kingdom	4.1	2.2	2.6	3.4	1.7
	Japan	7.2	12.8	7.3	2.8	4.6
	All other	7.2	6.7	6.3	5.3	3.0
35414	Grinding and polishing machines	41.5	28.9	32.0	34.6	37.4
	Canada	7.3	3.5	5.1	12.0	10.5
	EEC	5.3	5.8	7.0	8.6	9.0
	United Kingdom	4.1	2.5	3.2	2.7	2.7
	Japan	11.1	8.0	3.5	2.1	5.1
	All other	13.7	9.1	13.2	9.2	10.1
35415	Lathes	22.2	18.8	21.6	19.8	23.5
	Canada	7.1	4.1	5.6	6.3	4.7
	EEC	3.2	1.7	2.9	2.8	2.7
	United Kingdom	0.8	0.7	1.5	2.1	1.8
	Japan	1.9	4.3	1.9	0.6	3.4
	All other	9.2	8.0	9.7	8.0	10.9
35416	Milling machines	13.6	17.9	11.4	8.9	7.5
	Canada	3.8	8.1	5.0	2.2	2.0
	EEC	0.9	1.7	1.0	1.7	0.7
	United Kingdom	2.1	2.4	1.1	0.6	0.4
	Japan	1.3	1.1	0.2	0.1	0.8
	All other	5.5	4.6	4.1	4.3	3.6

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35418	Other machine tools	29.5	22.4	42.8	39.5	44.8
	Canada	13.4	3.9	7.9	12.0	17.5
	EEC	3.1	2.1	4.7	8.1	9.4
	United Kingdom	1.4	1.3	17.3	7.1	7.4
	Japan	3.3	2.5	0.8	1.6	1.8
	All other	8.3	12.6	12.1	10.7	8.7
35419	Rebuilt machine tools and parts, for metal-cutting machine tools	48.6	42.6	44.2	[2] 32.5	[2] 32.3
	Canada	10.9	9.7	12.3	7.9	6.6
	EEC	9.3	7.0	8.3	7.8	8.9
	United Kingdom	7.4	7.1	8.1	7.5	6.6
	Japan	4.3	2.0	2.3	1.2	1.1
	All other	16.7	16.8	13.2	8.1	9.1
	[2] Excludes Rebuilt					
35421	Punching, shearing, bending, and forming machines	23.5	16.1	20.1	21.1	15.7
	Canada	4.2	3.9	3.9	4.2	3.6
	EEC	2.6	2.0	2.3	3.3	2.3
	United Kingdom	1.3	1.4	2.4	1.2	1.0
	Japan	5.3	1.9	1.1	1.0	0.8
	All other	10.1	6.9	10.4	11.4	8.0
35422	Presses, including forging presses	28.3	33.9	22.5	22.5	26.1
	Canada	7.6	5.2	3.8	5.5	5.4
	EEC	2.6	7.3	7.0	3.0	3.6
	United Kingdom	1.6	0.9	1.0	1.4	1.6
	Japan	5.6	9.7	2.7	1.6	2.9
	All other	10.9	10.8	8.0	11.0	12.6
35423 35485	Metal-forming machine tools and other metal working machinery	40.6	32.7	29.0	31.4	33.1
	Canada	7.3	5.6	7.9	10.6	7.0
	EEC	4.6	5.0	4.2	5.7	5.2
	United Kingdom	2.9	4.0	4.0	3.3	3.6
	Japan	8.5	6.1	3.0	1.2	3.8
	All other	17.3	12.0	9.9	10.6	13.5

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35424	Parts for metal-forming machine tools	28.1	[2] 23.3	25.4	[2] 20.3	[2] 14.3
	Canada	8.8	6.0	7.8	7.4	4.3
	EEC	6.3	6.1	4.7	4.6	2.5
	United Kingdom	3.1	3.0	3.6	3.3	2.5
	Japan	0.9	2.0	0.6	0.3	0.9
	All other	9.0	6.2	8.7	4.7	4.1
35441	Special dies and tools, die sets, jigs and fixtures	21.8	29.9	21.3	26.4	21.6
	Canada	11.1	15.0	12.2	12.5	9.0
	EEC	1.9	8.2	1.8	3.1	1.8
	United Kingdom	0.7	0.8	0.7	1.4	1.2
	Japan	0.5	0.6	0.3	0.2	0.1
	All other	7.6	5.3	6.3	9.2	9.5
35442	Metal foundry molding boxes and molds	20.0	18.1	18.8	21.4	15.7
	Canada	10.9	11.1	11.7	13.2	8.0
	EEC	1.6	1.4	1.0	1.6	1.0
	United Kingdom	0.8	0.6	0.7	0.8	1.3
	Japan	0.5	0.2	0.1	0.1	0.1
	All other	6.2	4.8	5.3	5.7	5.3
35453	Attachments and accessories, N.E.C., for machine tools and metal working machinery	5.6	5.2	5.9	4.8	4.4
	Canada	1.6	1.8	2.0	1.8	1.6
	EEC	1.0	0.6	1.1	0.8	0.7
	United Kingdom	0.7	0.9	0.9	0.6	0.7
	Japan	0.5	0.3	0.1	0.1	0.1
	All other	1.8	1.6	1.8	1.5	1.3
35451	Small cutting tools for metal working machinery	28.1	21.9	22.1	22.1	21.4
	Canada	7.3	6.7	7.6	7.6	6.7
	EEC	5.7	3.6	3.9	3.7	3.4
	United Kingdom	2.5	2.1	2.1	1.7	1.8
	Japan	2.2	1.9	1.4	1.2	0.8
	All other	10.4	7.6	7.1	7.9	8.7

[1] Less than $0.05 million (included in all other).

[2] Excluding Rebuilt.

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35452	Precision measuring tools	6.1	4.2	3.3	2.7	4.4
	Canada	0.7	0.8	0.6	0.7	1.1
	EEC	2.2	0.7	0.5	0.4	0.4
	United Kingdom	0.3	0.3	0.3	0.1	0.3
	Japan	0.3	0.1	0.3	0.1	0.1
	All other	2.6	2.3	1.6	1.4	2.5
35481	Rolling mill machinery	47.0	58.7	58.2	74.6	55.1
	Canada	2.9	3.6	3.9	9.4	7.6
	EEC	5.9	8.5	4.8	7.5	6.9
	United Kingdom	0.3	1.5	2.1	0.3	0.9
	Japan	2.3	5.7	4.9	10.8	12.8
	All other	35.6	39.4	42.5	46.6	26.9
35482	Power driven hand tools and parts	57.4	54.8	52.8	52.4	50.2
	Canada	21.7	19.3	18.0	18.0	16.3
	EEC	9.6	8.6	10.0	10.9	11.2
	United Kingdom	3.5	3.3	3.0	3.9	3.4
	Japan	3.1	2.2	2.2	1.3	1.3
	All other	19.5	21.4	19.6	18.3	18.0
35483	Acetylene welding and cutting apparatus (excl. electric)	15.1	12.0	11.6	11.7	10.2
	Canada	2.7	2.4	2.7	2.7	2.5
	EEC	2.4	1.3	1.1	1.5	1.6
	United Kingdom	0.3	0.3	0.4	0.4	0.7
	Japan	1.8	1.7	1.1	2.2	1.0
	All other	7.9	6.3	6.3	4.9	4.4
35484	Automotive maintenance equipment	8.4	7.5	7.2	6.8	5.8
	Canada	3.1	2.5	2.3	2.2	1.9
	EEC	0.9	1.2	1.2	1.0	1.0
	United Kingdom	0.2	0.3	0.5	0.5	0.2
	Japan	0.5	0.6	0.6	0.6	0.4
	All other	3.7	2.9	2.6	2.5	2.3

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35511 35512	Dairy and milk products plant machinery and commercial food plants machinery	23.3	24.3	22.9	21.2	17.8
	Canada	6.5	6.9	6.0	7.0	6.7
	EEC	3.3	3.7	2.7	2.2	1.9
	United Kingdom	1.4	1.3	1.3	1.1	0.7
	Japan	0.7	1.6	1.6	0.7	0.4
	All other	11.4	10.8	11.3	10.2	8.1
35513	Other industrial food products machinery and parts	110.8	104.0	101.7	102.8	90.3
	Canada	25.2	25.1	18.7	21.5	18.0
	EEC	10.3	9.2	10.0	8.9	7.8
	United Kingdom	5.5	4.9	5.1	5.2	3.7
	Japan	3.5	2.9	2.6	2.1	1.8
	All other	66.3	61.9	65.3	65.1	59.0
35521	Textile machinery	71.4	57.3	68.1	77.4	71.4
	Canada	12.8	11.0	9.3	18.1	13.7
	EEC	11.0	8.7	10.3	14.0	10.5
	United Kingdom	3.5	3.7	4.8	3.9	4.6
	Japan	2.5	2.6	4.0	1.2	1.7
	All other	41.6	31.3	39.[illegible]	40.2	40.9
35522	Parts and attachments for textile machinery	70.5	60.5	57.1	62.6	56.1
	Canada	12.6	12.7	11.8	14.8	12.5
	EEC	18.1	11.5	11.2	13.2	10.0
	United Kingdom	8.4	6.2	5.4	7.4	7.9
	Japan	2.6	3.8	2.4	1.4	0.9
	All other	28.8	26.3	26.3	25.8	24.8
35530	Woodworking machinery and parts	59.1	40.0	40.3	39.6	39.3
	Canada	15.7	8.5	8.8	9.0	8.5
	EEC	13.3	9.0	7.8	8.7	7.4
	United Kingdom	1.0	0.7	1.3	0.8	1.2
	Japan	6.3	5.5	6.2	4.6	3.6
	All other	22.8	16.3	16.2	16.5	18.6

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35540	Paper industries machinery and parts	66.1	75.8	72.7	62.6	66.7
	Canada	19.9	20.2	19.4	21.2	19.2
	EEC	9.9	7.4	7.3	8.4	9.8
	United Kingdom	2.9	3.8	5.8	4.0	3.8
	Japan	4.4	2.6	1.8	1.2	2.5
	All other	29.0	41.8	38.4	27.8	31.4
35551	Printing presses	40.4	39.4	30.7	25.7	21.4
	Canada	12.1	7.9	7.8	6.8	4.9
	EEC	5.3	3.9	3.0	1.9	1.8
	United Kingdom	1.2	0.7	0.6	0.5	0.8
	Japan	1.2	2.2	1.2	0.1	0.5
	All other	20.6	24.7	18.1	16.4	13.4
35552	Other printing trades machinery and parts	81.2	67.8	65.2	59.8	53.3
	Canada	20.5	18.4	16.9	16.0	14.2
	EEC	17.0	13.6	14.3	12.9	11.7
	United Kingdom	7.0	6.0	5.9	5.7	5.8
	Japan	2.9	2.6	2.1	1.7	1.0
	All other	33.8	27.2	26.0	23.5	20.6
35591	Chemical manufacturing industries machinery	3.5	5.2	6.1	8.2	7.1
	Canada	0.6	0.7	0.8	1.0	1.7
	EEC	0.4	0.2	1.2	0.2	0.2
	United Kingdom	0.1	0.2	0.1	0.3	0.1
	Japan	0.1	(1)	0.2	(1)	(1)
	All other	2.3	4.1	3.8	6.7	5.1
35592	Foundry machinery and equipment, except patterns and molds	21.3	31.0	28.6	21.5	18.0
	Canada	5.7	7.0	5.9	8.3	5.8
	EEC	2.5	2.2	4.4	1.7	2.1
	United Kingdom	0.8	0.6	0.7	1.3	1.2
	Japan	1.8	2.6	0.3	0.3	0.5
	All other	10.5	18.6	17.3	9.9	8.4

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35593	Plastic-working machinery and equipment, except patterns and molds	39.5	30.0	28.1	28.9	27.8
	Canada	14.9	11.4	10.2	10.3	7.9
	EEC	7.2	4.2	5.3	6.0	6.1
	United Kingdom	2.5	2.2	2.2	2.5	3.4
	Japan	1.6	2.4	1.7	0.8	1.1
	All other	13.3	9.8	8.7	9.3	9.3
35594	Rubber working machinery and equipment	50.6	43.1	35.9	34.6	42.8
	Canada	11.5	9.8	7.0	7.9	6.1
	EEC	5.0	6.0	8.0	6.3	5.4
	United Kingdom	3.8	3.7	1.6	2.2	3.6
	Japan	2.3	2.1	1.4	0.2	0.8
	All other	28.0	21.5	17.9	18.0	26.9
35595	Other special industrial machinery	347.0	280.3	255.0	239.0	190.5
	Canada	68.6	63.9	67.0	60.3	48.4
	EEC	49.3	39.2	34.1	35.6	28.0
	United Kingdom	18.6	15.4	15.5	16.2	11.1
	Japan	34.8	22.4	15.8	10.0	8.2
	All other	175.5	139.4	122.6	116.9	94.8
35613	Domestic water systems and pumps	2.1	2.0	1.5	1.7	1.4
	Canada	0.3	0.3	0.3	0.3	0.3
	EEC	0.1	0.1	0.1	(1)	(1)
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	1.7	1.6	1.1	1.4	1.1
35614	Air and gas compressors, except refrigerants	67.8	73.5	81.6	60.5	56.5
	Canada	12.3	11.9	17.4	11.4	8.8
	EEC	4.7	7.4	4.5	7.1	4.5
	United Kingdom	0.8	4.1	2.8	0.5	3.6
	Japan	0.9	3.0	2.8	1.5	3.2
	All other	49.1	47.1	54.1	40.0	36.4

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35616	Parts and attachments for air and gas compressors	156.3	128.3	114.1	99.3	84.4
	Canada	42.6	36.0	29.1	25.2	21.7
	EEC	21.8	14.7	12.3	8.8	7.4
	United Kingdom	9.6	6.7	5.1	4.8	4.4
	Japan	6.2	4.7	3.6	4.9	2.2
	All other	76.1	66.2	64.0	55.6	48.7
35611	Industrial pumps, except hydraulic fluid power	66.5	69.6	69.9	68.4	56.1
	Canada	12.3	12.6	13.4	13.3	11.0
	EEC	6.1	6.0	6.2	5.8	4.7
	United Kingdom	1.5	1.5	1.0	1.1	1.7
	Japan	4.2	4.3	4.3	2.7	3.3
	All other	42.4	45.2	45.0	45.5	35.4
35612	Hydraulic fluid power pumps and motors	29.2	26.8	29.4	27.7	18.2
	Canada	9.8	10.1	10.3	8.2	7.1
	EEC	5.7	3.6	4.5	4.1	2.5
	United Kingdom	2.2	1.6	2.5	2.0	0.9
	Japan	3.5	4.1	4.1	1.6	1.1
	All other	8.0	7.4	8.0	11.8	6.6
35615	Pumps and compressors, n.e.c., except refrigerants	45.0	34.6	34.1	28.3	26.1
	Canada	10.7	8.6	8.4	6.8	7.4
	EEC	8.8	6.0	5.1	5.4	4.1
	United Kingdom	2.0	2.2	2.3	1.8	1.6
	Japan	3.0	1.9	2.0	1.0	0.6
	All other	20.5	15.9	16.3	13.3	12.4
35621	Ball bearings, complete	30.8	30.0	29.2	28.5	25.1
	Canada	9.5	9.5	10.5	8.5	5.6
	EEC	4.9	4.9	4.7	4.8	3.3
	United Kingdom	2.7	2.9	2.6	2.3	1.0
	Japan	0.9	0.7	0.8	1.1	0.4
	All other	12.8	12.0	10.6	11.8	14.8

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35622	Taper roller bearings (except thrust)	35.8	27.9	32.5	30.8	30.0
	Canada	11.4	10.6	13.9	9.8	7.7
	EEC	7.4	3.8	3.8	5.2	6.2
	United Kingdom	1.6	0.9	1.1	1.4	1.6
	Japan	0.5	0.3	0.5	0.3	0.5
	All other	14.9	12.3	13.2	14.1	14.0
35623	Other roller bearings, complete	19.7	18.2	19.2	18.8	17.7
	Canada	6.6	6.3	7.2	5.7	6.1
	EEC	3.5	2.5	2.6	2.3	2.4
	United Kingdom	1.5	1.4	0.9	0.9	1.0
	Japan	0.6	0.6	0.6	0.3	0.2
	All other	7.5	7.4	7.9	9.6	8.0
35629	Parts for ball and roller bearings	12.3	7.9	7.3	8.5	8.7
	Canada	5.2	3.3	3.0	4.9	4.3
	EEC	2.3	1.2	1.1	1.3	1.7
	United Kingdom	1.7	0.9	1.0	0.4	0.6
	Japan	0.3	0.2	0.1	0.1	(1)
	All other	2.8	2.3	2.1	1.8	2.1
35641	Industrial blowers and fans	15.8	14.2	14.3	14.1	13.6
	Canada	6.3	4.7	5.6	5.7	5.3
	EEC	1.9	1.6	2.1	2.1	1.0
	United Kingdom	0.7	0.5	0.4	0.6	0.5
	Japan	0.6	0.6	0.3	0.3	0.7
	All other	6.3	6.8	5.9	5.4	6.1
35642	Dust collection, air purification equipment	7.2	7.2	6.0	8.2	5.7
	Canada	2.9	2.6	2.7	3.1	1.5
	EEC	0.5	0.3	0.5	0.4	0.5
	United Kingdom	0.2	0.1	0.1	0.2	0.1
	Japan	0.2	0.4	0.1	(1)	0.1
	All other	3.4	3.8	2.6	4.5	3.5

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35661	Plain bearings	18.5	18.9	16.9	14.9	12.4
	Canada	7.5	8.1	8.1	6.5	4.2
	EEC	1.2	1.0	0.9	1.0	0.8
	United Kingdom	0.7	0.3	0.2	0.1	0.1
	Japan	0.5	0.5	0.3	0.2	0.5
	All other	8.6	9.0	7.4	7.1	6.8
35662	Speed changers, industrial high-speed drives and gears	23.7	19.3	19.9	16.7	16.7
	Canada	6.5	9.4	8.6	8.3	6.5
	EEC	4.2	1.7	1.8	1.4	1.2
	United Kingdom	1.7	1.1	1.7	0.9	1.1
	Japan	2.6	2.4	1.7	0.7	1.9
	All other	8.7	4.7	6.1	5.4	6.0
35663 35623	Other mechanical power transmission equipment	96.7	78.3	77.5	76.4	69.3
	Canada	38.1	33.9	34.9	35.4	31.6
	EEC	15.5	10.6	10.1	10.1	9.0
	United Kingdom	14.2	8.9	7.9	7.0	5.8
	Japan	3.7	2.6	3.0	2.3	2.4
	All other	25.2	22.3	21.6	21.6	20.5
35671	Electrical industrial furnaces and ovens, metal processing	4.8	4.9	6.1	6.2	5.8
	Canada	0.9	0.7	0.9	1.4	0.6
	EEC	1.0	0.8	0.8	1.5	1.0
	United Kingdom	0.2	0.2	0.3	0.1	0.1
	Japan	0.9	0.3	0.4	0.1	1.0
	All other	1.8	2.9	3.7	3.1	3.1
35673	Other industrial furnaces, and ovens, and parts, n.e.c.	14.6	14.5	15.1	14.7	15.0
	Canada	3.6	4.8	3.5	4.4	4.2
	EEC	2.5	1.9	3.0	2.6	2.1
	United Kingdom	0.7	0.5	0.6	0.6	0.8
	Japan	1.5	1.0	1.1	0.4	0.7
	All other	6.3	6.3	6.9	6.7	7.2

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35672	Industrial furnaces and ovens, fuel fired	4.0	2.7	8.4	8.8	3.5
	Canada	0.9	0.6	0.6	0.5	0.9
	EEC	0.1	0.4	0.6	0.6	0.2
	United Kingdom	0.1	0.1	0.3	0.1	0.1
	Japan	(1)	0.2	(1)	—	(1)
	All other	2.9	1.4	6.9	7.6	2.3
35690	General industrial machinery, n.e.c.	114.0	81.7	94.5	84.5	61.3
	Canada	30.7	19.7	26.7	25.6	17.2
	EEC	16.6	9.7	13.0	11.9	8.2
	United Kingdom	6.6	7.0	5.6	4.8	4.5
	Japan	6.6	4.6	5.6	3.8	2.8
	All other	53.5	40.7	43.7	38.4	28.6
35720	Typewriters and parts	37.2	43.1	40.9	33.8	30.4
	Canada	8.8	12.8	11.3	9.2	6.7
	EEC	11.5	11.9	11.2	7.6	7.2
	United Kingdom	2.6	2.5	2.1	2.7	2.3
	Japan	1.7	1.8	2.3	1.6	1.5
	All other	12.6	14.1	14.0	12.7	12.7
35760	Scales and balances, except laboratory	15.9	12.8	14.1	13.7	13.0
	Canada	4.8	2.0	4.5	4.5	3.5
	EEC	2.1	0.9	1.4	1.4	1.5
	United Kingdom	0.3	0.3	0.3	0.3	0.4
	Japan	0.1	0.2	0.1	(1)	0.1
	All other	8.6	9.4	7.8	7.5	7.5
35731	Electronic data processing machines, except typewriters and parts	428.5	344.5	313.4	202.9	145.4
	Canada	72.6	50.2	45.8	35.4	19.9
	EEC	141.3	126.2	118.2	68.0	45.2
	United Kingdom	60.2	61.3	49.5	33.3	25.3
	Japan	52.6	42.1	38.9	22.1	19.7
	All other	101.8	64.7	61.0	44.1	35.3

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35741	Calculating and accounting machines and cash registers, except parts	58.5	99.6	102.8	97.4	100.6
	Canada	7.1	13.7	16.7	12.3	11.9
	EEC	11.8	26.4	23.2	20.0	17.3
	United Kingdom	4.4	11.7	12.8	12.8	10.3
	Japan	11.3	13.7	11.4	12.2	16.6
	All other	23.9	34.1	38.7	40.1	44.5
35732	Parts and attachments for electronic data processing machines	299.3	141.9	118.4	92.4	77.4
	Canada	27.3	15.9	17.8	13.1	4.8
	EEC	114.2	54.2	47.6	37.8	38.1
	United Kingdom	44.3	18.5	15.9	13.5	15.1
	Japan	38.7	17.2	15.8	11.3	11.1
	All other	74.8	36.1	21.3	16.7	8.3
35743	Parts and attachments for calculating and accounting machines and cash registers	106.1	67.8	66.6	59.6	52.2
	Canada	34.1	21.8	16.7	16.4	16.9
	EEC	27.7	16.4	19.8	13.4	10.3
	United Kingdom	23.0	11.7	13.5	13.4	12.5
	Japan	6.9	5.7	6.6	7.8	4.1
	All other	14.4	12.2	10.0	8.6	8.4
35791	Complete office machines, n.e.c.	37.9	38.6	35.9	30.3	26.9
	Canada	11.2	10.2	10.7	9.7	8.0
	EEC	6.7	9.1	8.8	5.6	4.9
	United Kingdom	4.7	3.6	3.0	2.4	2.0
	Japan	2.9	2.6	1.8	1.7	1.0
	All other	12.4	13.1	11.6	10.9	11.0
35792	Parts and attachments for office machines, n.e.c.	62.4	46.2	57.3	62.0	52.7
	Canada	11.8	8.3	19.5	22.9	12.0
	EEC	20.1	14.9	13.6	18.9	20.0
	United Kingdom	10.8	9.2	9.3	9.5	9.0
	Japan	6.8	4.8	6.0	2.9	3.5
	All other	12.9	9.0	8.9	7.8	8.2

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35811	Automatic merchandising machines	13.3	14.0	11.6	12.6	10.5
	Canada	4.6	4.3	4.5	3.7	3.3.
	EEC	4.0	3.9	2.9	4.3	4.3
	United Kingdom	1.2	1.6	1.2	0.6	1.1
	Japan	0.6	1.4	0.7	0.1	0.1
	All other	2.9	2.8	2.3	3.9	1.7
35812	Coin operated mechanisms and parts for automatic merchandising machines	5.3	6.1	3.7	3.2	2.6
	Canada	1.6	2.1	1.4	0.9	0.8
	EEC	2.0	1.3	1.0	1.0	0.7
	United Kingdom	0.8	1.1	0.5	0.7	0.6
	Japan	0.2	0.2	0.1	[1]	[1]
	All other	0.7	1.4	0.7	0.6	0.5
35820	Commercial laundry equipment and parts	27.8	32.6	31.0	30.0	42.4
	Canada	6.4	7.3	7.9	7.0	10.1
	EEC	5.6	6.0	6.0	6.5	7.8
	United Kingdom	4.3	7.5	6.5	4.9	4.1
	Japan	1.4	1.8	1.6	2.2	4.3
	All other	10.1	10.0	9.0	9.4	16.1
35851	Heat transfer equipment	175.5	163.0	138.9	10.22	89.7
	Canada	36.1	33.7	25.6	17.6	10.7
	EEC	16.3	14.4	12.2	12.5	11.3
	United Kingdom	3.2	3.7	4.1	2.4	1.6
	Japan	12.2	19.1	14.9	8.9	6.5
	All other	107.7	92.1	82.1	78.8	59.6
35853	Commercial refrigerators and related equipment	17.3	16.7	16.3	17.3	16.3
	Canada	3.8	3.6	4.0	4.4	4.7
	EEC	2.0	1.9	1.4	1.8	2.1
	United Kingdom	0.5	0.9	0.9	0.7	0.7
	Japan	1.2	1.3	0.8	0.8	0.5
	All other	9.8	9.0	9.2	9.6	8.3

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35857	Other refrigeration and air-conditioning equipment......	119.4	96.1	84.0	74.4	59.6
	Canada..................	33.3	28.1	20.3	18.5	15.9
	EEC.....................	23.8	18.7	15.8	14.3	10.0
	United Kingdom..........	4.5	3.8	3.6	3.8	2.5
	Japan....................	8.4	6.7	4.5	1.2	1.1
	All other.................	49.7	38.8	39.8	36.6	30.1
35854	Compressors and compressor units, all refrigerants.........	34.5	29.9	25.0	26.8	33.4
	Canada..................	10.0	8.8	5.9	4.2	6.9
	EEC.....................	4.1	5.1	4.1	3.4	6.6
	United Kingdom..........	0.3	0.4	0.4	0.4	1.0
	Japan....................	0.5	1.1	0.6	0.2	0.2
	All other.................	19.6	14.5	14.0	13.6	18.7
35855	Condensing units, all refrigerants................	17.9	16.0	16.5	15.6	15.2
	Canada..................	5.6	4.2	5.4	3.8	4.1
	EEC.....................	1.0	1.0	1.1	1.3	1.4
	United Kingdom..........	0.4	0.6	0.5	0.4	0.3
	Japan....................	0.2	0.5	0.4	0.1	0.3
	All other.................	10.7	9.7	9.1	10.0	9.1
35860	Measuring and dispensing pumps.....................	17.7	15.9	17.5	16.4	16.8
	Canada..................	3.7	3.4	3.2	3.6	3.6
	EEC.....................	2.9	2.8	3.2	2.9	2.6
	United Kingdom..........	0.4	0.4	0.4	0.5	0.4
	Japan....................	0.9	0.6	0.6	0.4	0.3
	All other.................	9.8	8.7	10.1	9.0	9.9
35891	Commercial cooking and food warming equipment..........	13.4	10.8	8.8	7.7	6.5
	Canada..................	4.9	4.3	3.6	3.0	2.1
	EEC.....................	1.3	0.8	0.6	0.6	0.6
	United Kingdom..........	1.0	0.6	0.5	0.6	0.5
	Japan....................	0.6	0.6	0.3	0.2	0.2
	All other.................	5.6	4.5	3.8	3.3	3.1

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35892 35893	Service industry machines and parts	27.9	24.1	22.3	19.2	16.5
	Canada	4.7	4.1	4.4	3.9	3.0
	EEC	8.5	6.0	5.3	4.1	3.3
	United Kingdom	1.3	1.2	1.0	0.7	0.8
	Japan	0.9	1.1	1.1	0.4	0.3
	All other	13.1	11.7	10.5	10.1	9.1
35990	Miscellaneous machinery, except electrical	19.8	17.3	14.0	12.5	10.0
	Canada	8.8	7.7	6.1	5.8	4.8
	EEC	2.8	2.4	2.2	1.6	1.1
	United Kingdom	1.2	1.2	0.7	0.4	0.5
	Japan	0.8	0.6	0.6	0.2	0.2
	All other	6.2	5.4	4.4	4.5	3.4
36111	Integrating instruments, electrical	6.3	4.7	4.9	4.7	4.2
	Canada	0.6	0.8	0.5	1.1	0.8
	EEC	1.2	0.9	1.0	0.9	0.8
	United Kingdom	0.7	0.3	0.2	0.2	0.2
	Japan	0.3	0.2	0.6	0.1	0.3
	All other	3.5	2.5	2.6	2.4	2.1
36112	Testing equipment	117.1	97.8	84.3	72.3	63.7
	Canada	14.4	12.7	12.6	13.9	13.0
	EEC	26.8	19.9	20.6	18.8	17.2
	United Kingdom	18.7	18.0	16.3	13.1	9.7
	Japan	9.2	10.5	11.5	6.0	4.3
	All other	48.0	36.7	23.3	20.5	19.5
36113	Other electrical measuring instruments	120.5	95.8	76.4	60.6	48.1
	Canada	21.1	17.1	15.1	12.0	9.4
	EEC	32.3	24.5	20.7	16.8	11.4
	United Kingdom	16.0	14.5	11.3	9.2	8.5
	Japan	9.9	6.7	4.6	2.5	2.2
	All other	41.2	33.0	24.7	20.1	16.6

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36121	Specialty transformers and fluorescent ballasts, except parts	6.9	6.1	6.5	6.9	6.7
	Canada	1.3	1.7	1.9	1.1	1.8
	EEC	1.1	0.9	0.7	0.7	0.5
	United Kingdom	0.2	0.1	0.1	0.1	0.1
	Japan	0.2	0.1	(1)	(1)	—
	All other	4.1	3.3	3.8	5.0	4.3
36122	Power and distribution transformers	11.9	13.3	14.6	16.1	19.3
	Canada	0.4	0.3	0.4	0.9	0.7
	EEC	0.3	0.2	0.3	0.3	0.2
	United Kingdom	(1)	0.1	(1)	0.3	(1)
	Japan	0.1	0.1	(1)	(1)	0.1
	All other	11.1	12.6	13.9	14.6	18.3
36123	Power regulators, boosters, and transformer parts	15.4	14.7	13.7	11.3	10.8
	Canada	6.4	5.3	5.0	4.9	4.0
	EEC	1.2	1.1	0.6	1.1	1.2
	United Kingdom	0.2	0.2	0.3	0.2	0.3
	Japan	0.3	0.1	0.2	0.2	0.3
	All other	7.3	8.0	7.6	4.9	5.0
3613	Switchgear and switchboard apparatus	75.5	73.5	72.8	71.0	63.4
	Canada	15.3	13.7	14.3	16.3	18.3
	EEC	5.2	4.0	4.2	3.5	3.0
	United Kingdom	2.0	2.1	1.6	1.5	1.5
	Japan	1.9	1.5	1.2	1.7	1.0
	All other	51.1	52.2	51.5	48.0	39.6
36211	Fractional horsepower motors	19.7	15.7	15.5	14.0	11.6
	Canada	6.8	5.7	6.2	6.0	4.8
	EEC	4.4	3.0	3.2	2.4	1.6
	United Kingdom	1.5	1.5	0.9	0.7	0.7
	Japan	1.9	1.4	1.4	1.4	1.3
	All other	5.1	4.1	3.8	3.5	3.2

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36212	Integral horsepower motors, and generators, except land transportation	34.9	34.2	34.3	30.2	32.3
	Canada	10.9	8.9	10.3	10.5	7.5
	EEC	3.0	5.1	4.2	2.7	2.8
	United Kingdom	1.3	1.0	0.8	0.7	0.9
	Japan	0.9	0.6	0.7	1.0	0.4
	All other	18.8	18.6	18.3	15.3	20.7
36213	Land transportation motors, generators, and control equipment and parts	33.7	32.8	30.4	25.3	30.1
	Canada	25.0	21.2	19.5	12.7	11.5
	EEC	0.6	0.6	0.6	0.5	0.7
	United Kingdom	(1)	0.5	0.3	0.1	0.4
	Japan	0.1	0.1	0.1	0.1	0.1
	All other	8.0	10.4	9.9	11.9	17.4
36214	Prime mover generator sets, except steam or hydraulic turbine	52.7	62.1	58.2	43.3	49.5
	Canada	3.7	3.6	3.3	2.7	2.3
	EEC	2.4	1.9	2.6	1.5	3.9
	United Kingdom	0.5	0.4	0.8	0.4	1.9
	Japan	2.1	1.4	2.0	1.1	1.4
	All other	44.0	54.8	49.5	37.6	40.0
36215	Motor generator sets, and other rotating equipment	2.5	1.9	2.5	1.8	2.1
	Canada	1.0	0.7	0.4	0.8	0.7
	EEC	0.4	0.2	0.5	0.1	0.3
	United Kingdom	0.1	(1)	0.1	0.1	0.1
	Japan	0.1	(1)	(1)	(1)	(1)
	All other	0.9	1.0	1.5	0.8	1.0
36216	Parts and supplies, except for land transportation equipment	25.7	22.2	24.4	21.8	17.2
	Canada	8.4	6.1	6.9	7.7	6.4
	EEC	2.9	2.9	1.8	1.6	1.7
	United Kingdom	0.7	1.1	0.7	0.6	0.4
	Japan	0.5	0.5	0.5	0.5	0.3
	All other	13.2	11.6	14.5	11.4	8.4

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36220	Industrial controls and parts....	51.9	44.0	41.3	40.2	39.2
	Canada..................	11.9	10.8	10.9	11.8	11.5
	EEC.....................	12.4	9.5	9.8	8.2	7.2
	United Kingdom..........	4.6	3.8	3.2	2.6	3.4
	Japan....................	2.2	1.1	1.0	0.7	2.4
	All other................	20.8	18.8	16.4	16.9	14.7
36231	Arc welding machines and accessories, except electrodes..	29.5	26.4	27.5	25.3	23.0
	Canada..................	5.6	5.3	6.3	6.4	6.6
	EEC.....................	5.9	4.3	5.4	5.5	3.9
	United Kingdom..........	1.0	1.5	1.8	1.2	2.5
	Japan....................	1.7	1.9	0.8	0.6	0.4
	All other................	15.3	13.4	13.2	11.6	9.6
36232	Arc welding electrodes, metal...	10.9	8.8	11.0	10.4	9.5
	Canada..................	2.5	1.8	2.2	2.3	2.2
	EEC.....................	1.7	1.1	1.3	1.5	1.0
	United Kingdom..........	0.5	0.2	0.2	0.3	0.8
	Japan....................	0.5	0.3	0.2	0.2	0.2
	All other................	5.7	5.4	7.1	6.1	5.3
36233	Resistance welders, components, nec.........................	10.4	8.6	11.0	10.7	8.8
	Canada..................	2.4	1.8	2.5	3.3	2.4
	EEC.....................	2.2	1.3	1.2	1.6	1.5
	United Kingdom..........	0.5	0.8	1.0	1.1	1.0
	Japan....................	0.9	1.0	1.7	0.7	0.3
	All other................	4.4	3.7	4.6	4.0	3.6
36240	Carbon and graphite products...	25.8	23.9	20.3	21.9	19.5
	Canada..................	6.2	5.1	4.4	4.0	3.6
	EEC.....................	4.6	2.0	1.7	2.7	1.6
	United Kingdom..........	1.4	0.6	0.5	0.6	0.9
	Japan....................	0.8	0.3	0.2	0.2	0.2
	All other................	12.8	15.9	13.5	14.4	13.2

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36291	Capacitors for industrial use (except for electronic applications)	3.3	3.2	3.0	2.6	2.6
	Canada	0.9	0.6	0.7	0.7	0.8
	EEC	0.3	0.3	0.4	0.3	0.3
	United Kingdom	0.1	0.1	0.1	0.1	0.1
	Japan	0.4	(1)	0.2	(1)	(1)
	All other	1.6	2.2	1.6	1.5	1.4
36292	Rectifying apparatus	11.3	12.3	8.4	11.0	7.3
	Canada	2.1	1.9	1.8	2.1	1.6
	EEC	2.2	3.3	1.9	2.1	0.9
	United Kingdom	1.7	0.7	0.6	1.0	1.0
	Japan	0.3	0.1	0.2	0.1	0.1
	All other	5.0	6.3	3.9	5.7	3.7
36311	Electric household cooking equipment	8.4	8.4	7.7	7.2	6.6
	Canada	2.9	2.5	2.2	2.4	0.4
	EEC	0.6	1.1	0.9	0.4	0.5
	United Kingdom	0.8	0.9	1.1	0.8	0.2
	Japan	0.5	0.3	0.3	0.3	0.4
	All other	3.6	3.6	3.2	3.3	5.1
36312	Household cooking equipment and parts, except electric	10.5	11.5	12.2	6.4	6.8
	Canada	3.3	2.6	2.9	0.4	0.4
	EEC	0.4	0.6	0.6	0.1	0.1
	United Kingdom	0.3	0.7	0.3	(1)	(1)
	Japan	0.2	0.3	0.3	(1)	(1)
	All other	6.3	7.3	8.1	5.9	6.3
36341	Electric fans except industrial	1.9	1.6	1.6	1.6	1.9
	Canada	0.7	0.7	0.4	0.5	0.7
	EEC	(1)	(1)	(1)	(1)	0.2
	United Kingdom	(1)	—	(1)	(1)	(1)
	Japan	(1)	0.1	(1)	(1)	(1)
	All other	1.2	0.8	1.2	1.1	1.0

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36342	Electric razors and dry shavers..	0.3	0.6	1.1	1.1	1.3
	Canada..................	0.1	0.1	0.3	0.6	0.3
	EEC.....................	(1)	(1)	0.1	0.1	0.1
	United Kingdom..........	(1)	0.1	0.5	0.2	0.2
	Japan....................	(1)	—	(1)	(1)	(1)
	All other................	0.2	0.4	0.2	0.2	0.7
36344	Parts and attachments for small household electric appliances..	12.6	12.4	11.7	10.9	8.8
	Canada..................	7.6	5.7	5.9	5.5	4.0
	EEC.....................	1.1	1.4	1.5	1.4	1.8
	United Kingdom..........	0.7	1.1	1.4	1.3	0.6
	Japan....................	0.1	0.1	0.1	(1)	(1)
	All other................	3.1	3.1	2.8	2.7	2.4
36391	Household water heaters and parts, electric..............	1.6	1.0	1.0	1.0	1.0
	Canada..................	0.1	0.2	0.1	0.1	0.1
	EEC.....................	0.1	(1)	(1)	0.1	(1)
	United Kingdom..........	(1)	(1)	—	(1)	(1)
	Japan....................	0.5	(1)	(1)	(1)	(1)
	All other................	0.9	0.8	0.9	0.8	0.9
36392	Household water heaters, except electric..................	6.4	5.1	4.3	3.1	2.6
	Canada..................	2.1	1.8	1.3	1.2	1.0
	EEC.....................	1.0	0.6	0.3	0.2	0.2
	United Kingdom..........	0.2	0.1	0.7	(1)	(1)
	Japan....................	0.7	0.7	0.6	0.2	0.1
	All other................	2.4	1.9	1.4	1.5	1.3
36393	Other household appliances and parts................	11.2	10.4	10.5	12.3	10.5
	Canada..................	5.9	4.7	4.1	3.9	3.6
	EEC.....................	1.2	1.4	1.7	3.6	2.8
	United Kingdom..........	(1)	0.1	0.2	0.2	(1)
	Japan....................	0.2	0.2	0.1	0.1	0.1
	All other................	3.9	4.0	4.4	4.5	4.0

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36321	Household refrigerators	27.3	22.6	25.8	29.5	26.8
	Canada	4.6	2.5	2.4	2.7	2.1
	EEC	0.7	0.8	0.9	1.1	1.6
	United Kingdom	0.1	0.1	0.2	0.1	0.1
	Japan	0.4	0.3	0.2	0.1	0.2
	All other	21.5	18.9	22.1	25.5	22.8
36322	Home and farm freezers	3.2	2.8	3.5	4.7	6.2
	Canada	0.2	0.3	0.5	0.7	2.3
	EEC	0.1	0.1	0.4	1.0	3.5
	United Kingdom	0.2	0.1	0.1	0.1	0.1
	Japan	(1)	0.1	0.1	(1)	0.2
	All other	2.7	2.2	2.4	2.9	0.1
36331	Washing machines, dryers, and combinations, household	15.7	17.6	15.2	17.1	13.9
	Canada	6.5	6.7	5.7	5.7	4.7
	EEC	0.2	0.2	0.4	0.3	0.4
	United Kingdom	0.1	0.3	0.3	0.2	0.2
	Japan	0.1	0.1	0.1	(1)	(1)
	All other	8.8	10.3	8.7	10.9	8.6
36332	Other laundry equipment and parts, household	10.4	9.7	9.9	10.9	9.2
	Canada	7.1	5.7	6.0	6.4	5.1
	EEC	0.4	0.4	1.6	1.8	1.5
	United Kingdom	0.2	0.3	0.3	0.5	0.4
	Japan	0.1	0.1	0.1	(1)	(1)
	All other	2.6	3.2	1.9	2.2	2.2
36350	Household vacuum cleaners and parts	11.3	9.9	9.8	11.0	9.4
	Canada	7.4	6.7	6.3	6.6	5.7
	EEC	2.3	1.5	2.0	2.8	1.6
	United Kingdom	0.3	0.2	0.1	0.1	(1)
	Japan	0.1	0.1	(1)	(1)	0.2
	All other	1.2	1.4	1.4	1.5	1.9

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36360	Sewing machines and parts	39.1	32.3	28.9	30.6	30.6
	Canada	5.1	4.6	3.7	4.1	3.5
	EEC	10.8	7.5	6.2	7.7	8.9
	United Kingdom	5.2	5.0	4.2	4.2	5.6
	Japan	2.5	1.8	1.6	1.2	1.1
	All other	15.5	13.4	13.2	13.4	11.5
36410	Electric lamps (bulbs only)	31.5	30.7	30.9	30.0	25.7
	Canada	12.0	10.1	10.6	9.4	7.4
	EEC	6.9	6.2	6.2	7.4	3.6
	United Kingdom	1.0	0.9	0.8	0.9	0.6
	Japan	1.3	0.8	0.4	0.3	0.2
	All other	10.3	12.7	12.9	12.0	13.9
36421 36427	Residential-type fixtures	3.3	3.2	8.6	8.2	3.4
	Canada	1.2	1.0	4.7	4.3	1.3
	EEC	0.1	(1)	0.3	0.3	0.1
	United Kingdom	(1)	0.1	(1)	(1)	(1)
	Japan	(1)	(1)	0.1	0.2	(1)
	All other	2.0	2.1	3.5	3.4	2.0
36422 36423	Commercial and industrial lighting fixtures	6.6	7.1	6.0	6.3	5.5
	Canada	2.5	2.6	2.6	2.1	1.6
	EEC	0.3	0.5	0.2	0.7	0.3
	United Kingdom	(1)	0.1	0.1	(1)	0.1
	Japan	0.2	0.1	0.1	0.3	0.1
	All other	3.6	3.8	3.0	3.2	3.4
36425	Outdoor lighting equipment	5.9	4.9	4.3	3.0	2.4
	Canada	0.9	1.0	1.1	0.9	0.6
	EEC	0.7	0.1	0.1	0.4	0.1
	United Kingdom	1.1	0.1	0.1	(1)	(1)
	Japan	(1)	(1)	0.1	(1)	0.1
	All other	3.2	3.7	2.9	1.7	1.6

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36426	Other lighting equipment, parts and accessories	12.6	11.5	11.5	10.7	8.6
	Canada	3.2	3.5	3.4	3.9	3.0
	EEC	1.0	0.8	0.7	0.7	0.6
	United Kingdom	0.8	0.8	0.7	0.4	0.3
	Japan	0.3	0.3	0.2	0.2	0.3
	All other	7.3	6.1	6.5	5.5	4.4
36424	Vehicular lighting equipment, electric	20.5	14.8	12.1	9.6	7.3
	Canada	18.5	12.9	10.5	8.1	5.9
	EEC	0.1	0.2	0.3	0.2	0.2
	United Kingdom	0.1	0.1	(1)	0.1	0.1
	Japan	0.1	0.1	0.1	0.1	(1)
	All other	1.7	1.5	1.2	1.1	1.1
36430	Current-carrying wiring devices	116.0	94.5	87.2	77.4	59.3
	Canada	31.0	28.3	26.5	26.1	20.1
	EEC	29.7	21.3	21.3	18.0	14.0
	United Kingdom	12.9	11.8	11.2	12.2	7.3
	Japan	13.1	8.8	7.1	4.8	3.0
	All other	29.3	24.3	21.1	16.3	14.9
36441	Pole-line and transmission hardware	7.7	6.0	5.7	7.0	6.5
	Canada	0.9	0.8	1.0	1.6	1.6
	EEC	0.3	0.2	0.1	0.1	0.1
	United Kingdom	0.1	0.1	0.1	0.1	0.1
	Japan	0.1	(1)	(1)	0.1	(1)
	All other	6.3	4.9	4.5	5.1	4.7
36442	Electric conduit and conduit fittings	16.6	14.2	17.2	15.9	13.6
	Canada	4.2	3.8	4.4	4.7	4.0
	EEC	1.7	1.0	1.0	1.2	1.0
	United Kingdom	0.8	0.8	1.0	1.3	0.9
	Japan	0.6	0.2	0.2	0.1	0.2
	All other	9.3	8.4	10.6	8.6	7.5

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36443	Other non-current carrying wiring devices	1.3	1.2	1.1	1.0	1.1
	Canada	0.3	0.4	0.5	0.6	0.5
	EEC	0.1	(1)	(1)	(1)	(1)
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	0.9	0.8	0.6	0.4	0.6
36511	Household and automobile radios and radio-phonograph combinations	19.1	14.6	12.0	10.3	10.3
	Canada	12.7	9.4	6.7	4.2	3.9
	EEC	1.7	1.0	1.4	1.2	1.4
	United Kingdom	0.3	0.4	0.2	0.3	0.2
	Japan	0.1	0.2	0.1	0.1	(1)
	All other	4.3	3.6	3.6	4.5	4.8
36512	Household television receivers	33.3	27.8	23.6	26.3	21.3
	Canada	23.6	17.3	13.4	14.2	6.0
	EEC	0.1	0.1	0.4	0.2	0.7
	United Kingdom	0.1	(1)	0.1	0.1	(1)
	Japan	(1)	(1)	0.1	0.1	0.1
	All other	9.5	10.4	9.6	11.7	14.5
36514 36515	Other audio equipment and accessories	102.1	82.9	59.8	57.2	51.4
	Canada	16.7	17.6	9.9	9.7	6.8
	EEC	29.5	20.9	17.2	16.2	16.7
	United Kingdom	11.5	9.7	4.2	5.6	5.5
	Japan	7.1	5.9	4.5	3.3	2.8
	All other	37.3	28.8	24.0	22.4	19.6
36611	Telephone switching and switchboard equipment	2.0	1.0	1.0	0.6	1.1
	Canada	0.5	0.1	0.1	0.2	0.2
	EEC	(1)	(1)	(1)	(1)	(1)
	United Kingdom	(1)	(1)	0.1	(1)	(1)
	Japan	0.1	(1)	(1)	—	(1)
	All other	1.4	0.9	0.8	0.4	0.9

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36612	Other telephone and telegraph apparatus	64.1	48.6	44.6	36.5	35.3
	Canada	20.3	16.4	17.9	16.4	11.8
	EEC	4.4	2.4	3.2	1.7	3.7
	United Kingdom	11.8	6.1	5.5	2.1	1.7
	Japan	1.7	1.7	1.2	0.6	0.6
	All other	25.9	22.0	16.8	15.7	17.5
36621 36627	Electronic communications equipment and parts	147.8	115.5	108.9	75.1	50.1
	Canada	5.5	2.3	2.6	1.7	—
	EEC	42.6	27.2	40.9	29.1	29.0
	United Kingdom	14.4	9.7	6.2	7.0	8.5
	Japan	5.0	6.3	4.6	3.3	1.9
	All other	80.3	70.0	54.6	34.0	10.7
36622	Broadcast systems and closed circuit systems	127.5	113.2	83.9	62.1	30.5
	Canada	12.2	3.2	2.9	3.9	—
	EEC	17.3	12.9	15.3	13.3	13.9
	United Kingdom	12.9	11.3	5.6	7.8	4.2
	Japan	6.1	6.2	4.6	4.5	1.4
	All other	79.0	79.6	55.5	32.6	11.0
36623	Electric alarm and signal systems and intercom equipment	27.1	21.4	25.7	22.1	9.9
	Canada	10.8	8.6	12.2	9.2	—
	EEC	4.8	2.0	2.8	2.5	2.4
	United Kingdom	3.1	3.0	2.4	3.4	3.1
	Japan	0.6	0.5	0.2	0.1	0.3
	All other	7.8	7.3	8.1	6.9	4.1
36624 36628	Electronic navigational aids	148.3	127.3	81.1	56.8	46.1
	Canada	13.1	2.1	1.0	1.4	—
	EEC	40.8	47.3	35.0	23.9	31.9
	United Kingdom	45.1	36.6	14.1	11.8	7.5
	Japan	10.6	11.2	7.9	4.5	3.1
	All other	38.7	30.1	23.1	15.2	3.6

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36625	Electronic search and detection apparatus	74.6	63.6	61.1	30.7	44.6
	Canada	5.9	2.3	2.8	3.5	1.5
	EEC	25.5	15.4	21.2	10.1	24.0
	United Kingdom	22.0	16.6	5.4	5.1	2.4
	Japan	4.8	6.2	8.6	3.2	5.8
	All other	16.4	23.1	23.1	8.8	10.9
36626	Electronic equipment nec	53.1	40.9	31.4	30.9	24.4
	Canada	7.4	6.7	4.5	5.6	3.2
	EEC	14.1	11.1	11.3	13.0	9.8
	United Kingdom	3.1	4.5	1.7	0.5	1.1
	Japan	3.7	1.4	2.2	1.2	0.9
	All other	24.8	17.2	11.7	10.6	9.4
36629	Microwave and mobile telephone communication equipment	32.7	38.1	45.2	35.6	23.9
	Canada	4.0	5.2	3.8	6.2	3.6
	EEC	3.6	4.2	5.5	4.5	4.2
	United Kingdom	1.7	2.7	2.6	1.5	1.6
	Japan	0.6	0.7	0.6	0.7	0.4
	All other	22.8	25.3	32.7	22.7	14.1
36792	Capacitors for electronic applications	29.5	22.3	20.3	21.1	16.8
	Canada	5.4	5.5	5.3	5.8	4.6
	EEC	11.7	7.8	7.2	8.0	6.0
	United Kingdom	2.7	2.2	2.5	2.5	1.7
	Japan	1.0	0.7	0.4	0.5	0.2
	All other	8.7	6.1	4.9	4.3	4.3
36793	Resistors for electronic application	41.0	32.2	31.2	29.5	20.6
	Canada	8.2	8.6	11.8	10.4	5.5
	EEC	12.4	9.4	8.3	8.8	6.8
	United Kingdom	5.5	3.7	3.2	2.7	2.1
	Japan	2.4	1.6	1.1	1.1	0.8
	All other	12.5	8.9	6.8	6.5	5.4

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1955
36794	Coils, transformers, reactors and chokes	16.2	13.2	11.7	12.2	9.0
	Canada	2.8	2.9	3.8	4.1	2.7
	EEC	3.4	2.1	2.1	2.9	2.1
	United Kingdom	1.4	0.8	1.1	1.3	1.0
	Japan	0.6	0.4	0.6	0.6	0.4
	All other	8.0	7.0	4.1	3.3	2.8
36795	Other electronic components	144.0	123.5	91.8	81.1	75.3
	Canada	24.5	20.3	19.9	17.7	15.4
	EEC	33.2	22.2	20.6	17.5	14.8
	United Kingdom	18.3	19.3	14.9	14.9	12.3
	Japan	11.4	5.6	6.1	4.4	4.7
	All other	56.6	56.1	30.3	26.6	28.1
36930	X-ray and therapeutic apparatus	48.5	43.5	39.4	33.4	25.5
	Canada	14.7	13.3	12.5	10.0	8.5
	EEC	11.0	9.8	8.2	7.0	4.6
	United Kingdom	2.0	1.6	2.1	1.8	1.0
	Japan	2.1	2.6	1.7	1.5	1.0
	All other	18.7	16.2	14.9	13.1	10.4
36941	Ignition, harness and cable sets	16.8	13.0	10.4	7.0	5.3
	Canada	15.7	12.2	9.1	6.1	4.5
	EEC	0.1	0.2	0.5	0.2	0.2
	United Kingdom	0.3	0.1	0.1	0.1	(1)
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	0.7	0.5	0.7	0.6	0.6
36942 36945	Battery charging generators, other complete electrical equipment for internal combustion engines	35.4	34.8	30.1	27.7	22.4
	Canada	17.7	18.0	15.1	12.2	7.9
	EEC	3.3	2.6	2.8	2.7	2.7
	United Kingdom	1.3	1.3	0.6	0.4	0.4
	Japan	0.9	0.9	1.1	1.3	1.5
	All other	12.2	12.0	10.5	11.1	9.9

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36943	Cranking motors	13.8	11.3	6.5	7.4	5.2
	Canada	11.2	9.4	5.2	5.9	3.6
	EEC	0.3	0.1	0.1	0.1	0.2
	United Kingdom	0.4	0.3	0.1	0.1	0.1
	Japan	(1)	(1)	(1)	(1)	(1)
	All other	1.9	1.5	1.1	1.3	1.3
36946	Parts for engine electrical equipment	24.3	24.0	21.9	21.7	19.9
	Canada	4.4	4.4	4.8	3.7	3.6
	EEC	3.8	3.6	2.9	2.5	2.4
	United Kingdom	1.2	1.0	0.8	1.3	1.1
	Japan	0.5	0.7	0.8	1.0	1.3
	All other	14.4	14.3	12.6	13.2	11.5
36944	Spark plugs	13.1	14.0	12.0	15.3	13.1
	Canada	1.8	1.1	1.3	0.8	0.6
	EEC	1.5	2.0	2.0	3.8	4.9
	United Kingdom	0.2	0.4	0.3	0.3	0.2
	Japan	0.6	0.4	0.3	0.3	0.2
	All other	9.0	10.1	8.1	10.1	7.2
36990	Electrical products, n.e.c.	39.8	33.9	35.1	27.7	30.5
	Canada	12.5	12.4	13.7	11.3	11.0
	EEC	9.2	7.3	7.6	5.8	6.0
	United Kingdom	2.2	2.0	1.7	1.4	1.2
	Japan	2.1	1.3	1.5	1.2	2.0
	All other	13.8	10.9	10.6	8.0	10.3
37171	Passenger cars, new	262.3	268.9	248.7	289.7	280.0
	Canada	—	—	—	—	—
	EEC	21.1	23.3	22.8	27.6	38.9
	United Kingdom	1.3	1.3	1.5	1.1	1.2
	Japan	15.2	13.5	8.5	8.5	9.7
	All other	224.7	230.8	215.9	252.5	230.2

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
37113	Motor coaches and fire department vehicles	14.1	26.0	17.9	17.9	19.0
	Canada	—	—	—	—	—
	EEC	(1)	(1)	0.1	(1)	0.6
	United Kingdom	(1)	—	(1)	—	(1)
	Japan	(1)	—	(1)	(1)	(1)
	All other	14.1	26.0	17.8	17.9	18.4
37112	Trucks, new and wheeled armored vehicles	220.6	307.1	311.1	356.0	309.2
	Canada	—	—	—	—	—
	EEC	10.9	7.8	8.8	4.0	5.3
	United Kingdom	1.0	2.7	1.8	2.1	1.0
	Japan	1.3	1.3	0.7	0.9	0.1
	All other	207.4	295.3	299.8	349.0	302.8
37140	Parts and accessories for passenger cars, trucks & buses	460.9	404.0	375.3	381.8	327.1
	Canada	—	—	—	—	—
	EEC	60.8	43.0	38.0	39.4	32.6
	United Kingdom	23.3	18.8	16.0	19.2	14.8
	Japan	7.4	3.2	4.4	2.2	5.1
	All other	369.4	339.0	316.9	321.0	274.6
37130	Truck and bus bodies (for sale separately)	4.8	4.0	3.9	4.6	3.3
	Canada	—	—	—	—	—
	EEC	(1)	0.2	0.3	0.3	0.2
	United Kingdom	0.1	(1)	(1)	(1)	(1)
	Japan	0.1	—	—	—	(1)
	All other	4.6	3.8	3.6	4.3	3.1
37212 37213	Aircraft, non-military, excluding rebuilt and modified	1,103.3	1,336.6	729.8	522.4	438.8
	Canada	128.2	204.8	95.1	56.5	18.1
	EEC	300.0	323.2	194.7	118.5	118.2
	United Kingdom	15.2	35.1	18.8	3.3	18.4
	Japan	73.4	56.0	27.6	76.2	62.1
	All other	586.5	717.5	393.6	267.9	222.0

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
37222	Aircraft engines, nonmilitary, excluding missile turbines	94.3	106.4	89.7	65.1	45.8
	Canada	12.2	14.4	9.1	7.5	1.9
	EEC	19.1	40.2	35.3	23.8	16.2
	United Kingdom	6.5	4.5	2.8	2.3	2.4
	Japan	12.7	8.3	7.3	7.5	7.5
	All other	43.8	39.0	35.2	24.0	17.8
37224	Parts n.e.c., for combustion aircraft engines and turbines	235.2	232.6	206.8	183.3	169.1
	Canada	48.7	46.2	44.6	41.4	30.9
	EEC	64.3	64.6	54.4	52.4	52.0
	United Kingdom	12.1	10.1	16.9	11.1	5.5
	Japan	26.1	28.5	24.4	17.7	17.5
	All other	84.0	83.2	66.5	60.7	63.2
37230	Propellers and parts, n.e.c., for aircraft and airships	17.8	18.7	17.5	13.5	14.0
	Canada	5.8	6.5	5.7	3.5	4.9
	EEC	2.0	2.4	2.3	1.9	2.0
	United Kingdom	1.3	0.6	1.2	0.4	0.3
	Japan	1.6	1.7	1.6	1.7	1.4
	All other	7.1	7.5	6.7	6.0	5.4
37290	Parts and accessories, n.e.c., including landing gear for aircraft, excluding missile components	543.8	482.3	413.7	314.8	298.2
	Canada	57.0	56.5	52.9	38.8	31.9
	EEC	171.7	143.1	141.8	109.9	93.0
	United Kingdom	38.5	53.7	25.2	14.8	10.6
	Japan	50.1	44.9	41.3	31.8	34.1
	All other	226.5	184.1	152.5	119.5	128.6
37510	Motorcycles, bicycles, and parts	4.4	4.8	4.0	2.7	2.3
	Canada	1.6	1.7	1.8	1.0	0.8
	EEC	0.4	0.3	0.4	0.3	0.2
	United Kingdom	0.7	0.9	(1)	(1)	(1)
	Japan	0.1	0.1	(1)	(1)	(1)
	All other	1.6	1.8	1.8	1.4	1.3

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
37150	Truck trailers and parts........	15.1	12.1	10.8	12.9	11.2
	Canada..................	—	—	—	—	—
	EEC.....................	1.1	0.9	0.6	1.2	0.6
	United Kingdom..........	0.4	0.2	0.3	0.5	0.1
	Japan....................	1.5	0.1	0.1	0.1	0.2
	All other.................	12.1	10.9	9.8	11.1	10.3
37910	Trailer coaches, housing type...	25.7	18.9	14.2	12.4	7.9
	Canada..................	23.0	18.0	13.3	11.3	6.7
	EEC.....................	0.2	0.1	(1)	0.1	0.2
	United Kingdom..........	(1)	(1)	(1)	(1)	(1)
	Japan....................	(1)	(1)	(1)	(1)	—
	All other.................	2.5	0.8	0.9	1.0	1.0
37991	Automobile trailers and parts...	2.3	2.6	1.9	1.6	1.4
	Canada..................	1.9	2.3	1.6	1.3	1.2
	EEC.....................	(1)	0.1	0.1	0.1	(1)
	United Kingdom..........	(1)	(1)	(1)	(1)	(1)
	Japan....................	(1)	(1)	(1)	(1)	(1)
	All other.................	0.4	0.2	0.2	0.2	0.2
37992	Transportation equipment, n.e.c......................	14.3	8.7	9.0	6.1	6.3
	Canada..................	10.2	4.9	4.8	3.7	3.3
	EEC.....................	0.1	0.1	0.3	0.2	0.2
	United Kingdom..........	0.2	0.1	0.1	(1)	0.1
	Japan....................	0.1	0.1	0.1	0.1	(1)
	All other.................	3.7	3.5	3.7	2.1	2.7
37321 37322	Inboard and outboard motor boats......................	10.7	9.2	8.7	8.1	6.7
	Canada..................	2.7	2.0	1.8	1.5	1.3
	EEC.....................	3.7	3.7	3.3	3.3	2.6
	United Kingdom..........	0.1	(1)	0.2	0.1	0.1
	Japan....................	0.1	(1)	—	(1)	(1)
	All other.................	4.1	3.5	3.4	3.2	2.7

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
37323	Other boats, nonmilitary.......	14.5	14.1	9.0	7.6	5.7
	Canada..................	1.9	1.4	1.2	1.1	1.0
	EEC.....................	2.0	2.1	1.1	1.1	0.7
	United Kingdom..........	0.3	0.3	0.1	0.2	0.1
	Japan....................	0.1	1.6	0.2	(1)	(1)
	All other................	10.2	8.7	6.4	5.2	3.9
38111	Aircraft flight instruments and associated equipment........	75.1	77.2	84.3	80.0	56.8
	Canada..................	13.9	6.9	5.9	6.4	5.1
	EEC.....................	17.0	22.0	31.4	30.0	22.8
	United Kingdom..........	10.3	13.9	15.9	9.8	8.1
	Japan....................	11.0	9.2	9.2	14.5	6.0
	All other................	22.9	25.2	21.9	19.3	14.8
38112	Laboratory and scientific instruments................	77.0	69.5	73.6	69.7	66.3
	Canada..................	20.3	15.6	14.7	16.7	14.1
	EEC.....................	15.4	14.9	12.7	14.9	16.1
	United Kingdom..........	5.3	3.9	7.5	5.8	7.2
	Japan....................	4.2	3.0	2.9	3.5	3.0
	All other................	31.8	32.1	35.8	28.8	25.9
38113	Surveying and drafting instruments and laboratory furniture..................	10.2	8.2	8.0	7.2	6.1
	Canada..................	2.5	2.1	2.2	2.3	2.3
	EEC.....................	0.5	0.6	0.5	0.5	0.4
	United Kingdom..........	0.4	0.4	0.4	0.6	0.2
	Japan....................	0.3	0.3	0.2	(1)	0.2
	All other................	6.5	4.8	4.7	3.8	3.0
38212	Integrating meters, nonelectric type......................	9.2	9.1	9.9	9.4	8.3
	Canada..................	3.3	3.3	3.3	3.3	2.9
	EEC.....................	1.0	0.9	1.3	1.0	0.1
	United Kingdom..........	0.7	0.8	0.6	0.6	0.1
	Japan....................	0.2	0.1	0.1	0.1	(1)
	All other................	4.0	4.0	4.6	4.4	5.2

[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
38211	Aircraft engine instruments except flight	9.5	10.6	12.5	8.5	10.0
	Canada	2.8	3.1	3.4	2.0	2.3
	EEC	2.0	1.9	3.2	2.2	2.7
	United Kingdom	0.4	1.3	1.1	0.7	0.9
	Japan	1.5	1.6	2.4	1.2	1.8
	All other	2.8	2.7	2.4	2.4	2.3
38214	Motor vehicle instruments, except electric	11.7	11.7	9.5	8.1	8.4
	Canada	8.3	8.6	6.9	6.2	6.8
	EEC	0.7	0.7	0.6	0.4	0.2
	United Kingdom	0.2	0.2	0.1	0.1	0.1
	Japan	0.2	0.1	0.2	0.1	(1)
	All other	2.3	2.1	1.7	1.3	1.3
38216	Other mechanical measuring and controlling instruments	46.5	40.8	38.1	63.0	53.0
	Canada	10.5	9.4	9.5	15.7	11.7
	EEC	11.6	10.9	9.8	16.7	16.2
	United Kingdom	3.9	3.2	3.7	5.3	4.1
	Japan	4.3	2.5	2.3	4.3	3.7
	All other	16.2	14.8	12.8	21.0	17.3
38220 38213	Automatic temperature controls and industrial process instruments	266.7	228.5	224.0	167.5	139.8
	Canada	56.6	50.6	48.5	39.4	32.1
	EEC	64.6	52.3	57.8	41.3	33.1
	United Kingdom	23.7	21.0	18.5	14.5	11.9
	Japan	26.5	19.7	18.4	9.5	8.6
	All other	95.3	84.9	80.8	62.8	54.1
38311	Optical instruments and lenses, n.e.c.	46.2	36.9	32.9	29.2	25.9
	Canada	8.0	7.0	7.7	6.4	5.9
	EEC	11.2	8.6	8.7	7.7	6.2
	United Kingdom	4.6	3.5	3.3	2.9	3.2
	Japan	4.1	2.9	2.3	1.9	1.8
	All other	18.3	14.9	10.9	10.3	8.8

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[1] Less than $0.05 million (included in all other).

Table 12. Exports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
38312	Sighting and fire control equipment	0.1	0.1	0.1	0.2	0.2
	Canada	0.1	0.1	0.1	0.2	0.2
	EEC					
	United Kingdom					
	Japan					
	All other					
38410	Surgical and medical instruments and apparatus	87.5	71.5	63.8	52.9	44.5
	Canada	29.1	27.9	23.5	18.9	15.0
	EEC	15.2	10.7	9.1	7.7	6.9
	United Kingdom	4.1	4.3	3.9	3.0	2.8
	Japan	4.2	2.7	2.4	2.4	2.1
	All other	34.9	25.9	24.9	20.9	17.7

Table 13. U.S. Imports of Measurement-Standard Sensitive Product Classes, 1965–69

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
24261	Hardwood flooring	2.9	2.5	2.3	2.9	2.8
	Canada	2.0	1.9	2.0	2.5	2.4
	EEC	(1)	(1)	(1)	(1)	(1)
	United Kingdom	(1)	(1)	(1)	0.1	na
	Japan	na	(1)	(1)	(1)	(1)
	All other	0.9	0.6	0.3	0.3	0.4
24262	Hardwood dimension stock	14.4	10.3	8.0	7.2	5.3
	Canada	3.2	2.2	2.0	2.4	1.9
	EEC	1.8	1.7	1.5	0.8	0.5
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	1.9	1.4	1.2	1.0	0.8
	All other	7.5	5.0	3.3	3.0	2.1

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
24320	Veneer and plywood	297.3	268.8	185.8	200.3	170.6
	Canada	29.6	33.6	31.6	35.1	33.9
	EEC	2.2	2.6	2.1	2.1	2.2
	United Kingdom	0.4	0.5	0.2	0.2	0.2
	Japan	69.7	72.1	47.9	56.0	50.6
	All other	195.4	160.0	104.0	106.9	83.7
24996	Hard pressed wood fibre board	19.4	17.5	13.1	14.0	17.7
	Canada	4.6	3.7	2.6	2.4	3.6
	EEC	0.9	(1)	(1)	0.1	0.2
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	0.8	(1)	(1)	0.1	(1)
	All other	13.1	13.8	10.5	11.4	13.9
33512	Copper mill shapes	94.0	136.1	99.8	131.4	67.9
	Canada	22.2	39.2	25.5	29.4	8.8
	EEC	37.5	51.3	46.8	59.3	31.7
	United Kingdom	4.0	8.7	6.9	10.3	4.9
	Japan	20.6	17.9	11.3	18.5	11.7
	All other	9.7	19.0	9.3	13.9	10.8
33522	Aluminum plate and sheet	28.7	32.4	27.8	63.8	33.8
	Canada	3.6	4.5	3.5	4.6	2.5
	EEC	11.4	17.4	15.6	38.7	24.0
	United Kingdom	(1)	0.1	1.2	3.0	0.5
	Japan	8.4	6.1	2.7	10.4	4.3
	All other	5.3	4.3	4.8	7.1	2.5
33524 33525	Aluminum bars, rods and structural shapes	9.0	8.7	11.8	11.2	4.0
	Canada	0.6	0.4	1.9	1.0	0.2
	EEC	1.3	2.0	5.2	6.9	2.2
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	1.9	1.6	0.6	0.9	0.4
	All other	5.2	4.7	4.1	2.4	1.2

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
34231 34233	Handtools, n.e.c.	49.2	44.0	33.4	26.6	21.4
	Canada	1.0	1.2	0.7	0.7	0.5
	EEC	6.8	6.6	5.1	4.4	3.9
	United Kingdom	3.3	3.0	2.6	2.2	2.1
	Japan	26.8	22.7	18.2	15.4	11.8
	All other	11.3	10.5	6.8	3.9	3.1
34320	Plumbing fixture fittings and trim (brass goods)	1.2	1.4	0.9	1.2	1.3
	Canada	(1)	(1)	(1)	(1)	(1)
	EEC	0.1	0.1	0.1	0.1	0.2
	United Kingdom	(1)	0.2	(1)	(1)	(1)
	Japan	0.6	0.5	0.4	0.6	0.8
	All other	0.5	0.6	0.4	0.5	0.3
34330 36312	Heating equipment, except electric	8.4	5.8	4.4	3.5	3.5
	Canada	0.8	0.4	0.5	0.5	0.5
	EEC	1.8	0.3	0.7	0.4	0.5
	United Kingdom	0.8	0.4	0.3	0.4	0.7
	Japan	2.5	3.2	2.4	1.7	1.4
	All other	2.5	1.5	0.5	0.5	0.4
34410 34420 34490	Metal windows, doors, frames and fabricated structural metal products, n.e.c.	44.0	34.4	27.6	21.1	15.4
	Canada	16.0	8.2	3.7	4.5	2.9
	EEC	16.7	14.7	16.3	12.1	10.3
	United Kingdom	3.7	2.8	1.6	1.4	1.2
	Japan	6.0	7.8	5.8	2.8	0.8
	All other	1.6	0.9	0.2	0.3	0.2
34431 34433	Heat exchangers and steam condensers and steel power boilers, parts and attachments	3.2	2.4	2.3	1.4	0.7
	Canada	0.8	1.2	1.1	0.9	0.3
	EEC	1.5	0.6	0.2	0.1	0.1
	United Kingdom	(1)	0.2	(1)	(1)	0.1
	Japan	0.2	0.3	0.7	(1)	(1)
	All other	0.7	0.1	0.3	0.4	0.2

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
34434 34435 34437 34439	Gas cylinders and metal tanks...	1.2	0.8	1.2	1.0	0.4
	Canada..................	0.8	0.2	0.2	0.2	0.3
	EEC.....................	0.2	0.5	1.0	0.1	(1)
	United Kingdom..........	0.1	(1)	(1)	0.5	(1)
	Japan....................	(1)	(1)	(1)	0.1	(1)
	All other................	0.1	0.1	0.0	0.1	0.1
34521	Standard industrial fasteners (bolts, nuts, screws, etc.).....	99.5	80.0	71.1	60.2	51.5
	Canada..................	13.1	11.4	7.0	5.1	3.5
	EEC.....................	15.7	15.0	15.3	13.2	11.4
	United Kingdom..........	3.8	4.7	4.6	3.5	3.1
	Japan....................	52.6	38.8	36.6	32.3	28.1
	All other................	14.3	10.1	7.6	6.1	5.4
34910 34110	Metal shipping barrels, drums, kegs, and pails..............	11.1	9.8	5.6	5.2	5.3
	Canada..................	6.8	6.0	2.2	2.3	1.3
	EEC.....................	1.7	1.5	1.5	1.1	2.5
	United Kingdom..........	0.7	0.6	0.6	0.4	0.4
	Japan....................	0.4	0.3	0.2	0.3	0.2
	All other................	1.5	1.4	1.1	1.1	0.9
34941 34943 34944	Metal valves, except plumbers' brass goods................	34.3	28.5	20.9	17.1	12.1
	Canada..................	9.9	8.8	6.7	5.4	3.9
	EEC.....................	11.6	9.9	7.3	5.1	3.7
	United Kingdom..........	3.1	3.2	2.0	1.8	1.3
	Japan....................	5.5	3.8	2.5	2.8	2.3
	All other................	4.2	2.8	2.4	2.0	0.9
34942 34945	Metal fittings and unions for piping systems..............	18.6	19.6	16.8	12.3	8.9
	Canada..................	2.2	3.1	1.7	0.5	0.2
	EEC.....................	5.4	5.9	5.8	3.9	2.3
	United Kingdom..........	0.9	1.1	0.8	0.8	0.5
	Japan....................	7.6	7.6	7.3	6.0	4.8
	All other................	2.5	1.9	1.2	1.1	1.1

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35193 35194	Diesel and semi-diesel engines	33.4	21.4	17.3	21.0	15.5
	Canada	3.0	0.4	0.2	0.5	0.2
	EEC	3.5	8.4	5.0	4.5	4.6
	United Kingdom	18.8	11.3	11.0	15.2	10.1
	Japan	1.2	0.1	0.2	0.1	0.4
	All other	6.9	1.2	0.9	0.7	0.2
35195 35196	Internal combustion engines, n.e.c.	62.4	62.1	49.9	35.4	25.8
	Canada	2.3	7.7	11.2	2.5	1.4
	EEC	22.6	16.2	11.4	4.2	2.9
	United Kingdom	27.7	31.8	26.8	27.7	20.0
	Japan	5.9	4.2	0.2	0.2	0.2
	All other	3.9	2.2	0.3	0.8	1.3
35221	Wheel tractors (except contractors' off-highway and garden tractors, parts and attachments)	18.7	15.4	18.8	20.0	11.4
	Canada	—	—	—	—	—
	EEC	6.2	2.7	4.9	5.5	1.1
	United Kingdom	11.7	12.6	13.6	14.2	10.2
	Japan	0.3	(1)	(1)	0.2	(1)
	All other	0.5	0.1	0.3	0.1	0.1
35223 part	Planting, seeding, and fertilizing machinery	0.9	1.1	0.4	0.5	0.6
	Canada	—	—	—	—	—
	EEC	0.7	0.8	0.3	0.3	0.5
	United Kingdom	0.1	0.1	(1)	0.2	(1)
	Japan	(1)	(1)	(1)	(1)	—
	All other	0.1	0.2	0.1	—	0.1
35224 part	Plows, listers, harrows, rollers, etc.	0.5	0.9	1.4	1.4	1.2
	Canada	—	—	—	—	—
	EEC	(1)	0.1	0.1	(1)	(1)
	United Kingdom	0.1	0.8	1.1	1.3	1.1
	Japan	(1)	—	—	—	—
	All other	0.4	—	0.2	0.1	0.1

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35226 part	Haying machinery and mower (except lawnmowers)	0.7	0.3	0.3	0.3	0.2
	Canada	—	—	—	—	—
	EEC	0.5	0.1	0.2	0.2	0.2
	United Kingdom	(1)	0.1	0.1	(1)	(1)
	Japan	(1)	0.1	—	—	—
	All other	0.2	—	—	0.1	—
35227	Lawn mowers	0.5	0.6	0.3	0.3	0.3
	Canada	—	—	—	—	—
	EEC	(1)	(1)	(1)	(1)	(1)
	United Kingdom	0.4	0.5	0.3	0.3	0.3
	Japan	(1)	(1)	(1)	—	—
	All other	0.1	0.1	—	—	—
35225 part	Harvesting machinery	8.1	12.5	5.0	4.0	1.8
	Canada	—	—	—	—	—
	EEC	7.8	12.2	4.8	4.0	1.7
	United Kingdom	0.1	0.1	(1)	—	(1)
	Japan	0.2	0.1	—	—	—
	All other	(1)	0.1	0.2	—	0.1
35228 35229	Other farm machinery equipment and parts	86.3	84.3	64.1	65.2	50.1
	Canada	—	—	—	—	—
	EEC	50.1	50.9	33.0	27.8	22.7
	United Kingdom	31.4	30.0	28.9	35.3	26.0
	Japan	1.0	1.1	0.7	0.5	0.1
	All other	3.8	2.3	1.5	1.6	1.3
35311 35312 35313	Construction-type tractors, parts and attachments	35.8	22.8	27.9	36.6	25.7
	Canada	25.9	17.1	18.5	25.5	14.3
	EEC	4.4	4.2	5.8	8.2	7.2
	United Kingdom	2.6	1.3	3.2	2.8	4.0
	Japan	2.8	0.1	0.4	(1)	(1)
	All other	0.1	0.1	—	0.1	0.2

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35314 35317 35318 35319 35331 35332 35334	Mining and construction machinery, n.e.c., and parts...	61.8	51.9	54.3	48.4	33.7
	Canada..................	17.0	16.4	18.3	16.6	11.3
	EEC.....................	26.4	22.4	19.2	14.3	9.7
	United Kingdom..........	5.6	4.4	5.7	5.7	3.5
	Japan....................	6.1	2.9	2.3	2.0	0.4
	All other................	6.7	5.8	8.8	9.8	8.8
35340	Elevators and moving stairways.	1.7	3.8	1.9	0.9	1.1
	Canada..................	0.2	1.3	0.7	0.2	0.3
	EEC.....................	0.5	1.2	0.8	0.4	0.3
	United Kingdom..........	0.7	1.1	0.3	0.1	0.1
	Japan....................	0.2	(1)	(1)	(1)	(1)
	All other................	0.1	0.2	0.1	0.2	0.4
35350	Conveying equipment..........	10.5	7.9	4.8	3.0	2.5
	Canada..................	5.6	3.6	2.3	1.3	0.9
	EEC.....................	2.2	1.8	0.9	0.9	0.3
	United Kingdom..........	0.6	1.1	0.3	0.2	0.4
	Japan....................	0.1	(1)	(1)	(1)	(1)
	All other................	2.0	1.4	1.3	0.6	0.9
35360	Hoists, cranes, and monorail systems....................	62.8	41.9	11.6	11.4	7.6
	Canada..................	21.4	13.5	5.2	4.8	3.1
	EEC.....................	16.3	12.2	2.9	3.3	1.6
	United Kingdom..........	5.6	3.1	0.3	0.3	0.3
	Japan....................	5.2	2.9	0.7	1.0	0.8
	All other................	14.3	10.2	2.5	2.0	1.8
35370	Industrial trucks and tractors...	13.9	7.4	3.3	2.1	0.7
	Canada..................	2.9	2.1	1.3	0.7	0.2
	EEC.....................	1.6	1.3	0.4	0.5	0.1
	United Kingdom..........	2.7	1.3	0.6	0.3	0.1
	Japan....................	6.0	2.5	1.0	0.6	0.1
	All other................	0.7	0.2	0.0	0.0	0.2

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35411	Boring machines	21.0	21.4	21.0	12.8	6.1
	Canada	0.8	0.5	0.1	0.1	0.1
	EEC	13.2	11.8	12.5	6.7	2.6
	United Kingdom	3.1	3.4	2.9	1.4	0.5
	Japan	0.5	1.5	1.9	1.2	0.5
	All other	3.4	4.2	3.6	3.4	2.4
35412	Drilling machines	6.0	8.1	7.6	5.1	2.3
	Canada	0.1	0.2	0.2	0.1	(1)
	EEC	2.7	4.5	3.8	2.5	0.9
	United Kingdom	0.6	0.7	0.8	0.5	0.3
	Japan	1.1	1.4	1.1	0.9	0.3
	All other	1.5	1.3	1.7	1.1	0.8
35413	Gear cutting and finishing machines	2.5	3.8	3.6	2.4	3.3
	Canada	0.1	(1)	(1)	(1)	na
	EEC	1.6	2.9	2.5	1.7	2.3
	United Kingdom	0.4	(1)	0.1	0.1	(1)
	Japan	0.1	(1)	0.1	0.2	0.1
	All other	0.3	0.9	0.9	0.4	0.9
35415	Lathes	38.0	38.1	47.7	37.2	14.2
	Canada	2.0	0.6	1.1	0.4	(1)
	EEC	13.7	16.2	18.5	15.6	5.6
	United Kingdom	7.7	7.8	11.3	7.1	3.1
	Japan	8.3	7.4	10.2	7.6	2.3
	All other	6.3	6.1	6.6	6.5	3.2
35416	Milling machines	26.3	30.6	31.4	17.4	6.1
	Canada	2.3	2.4	3.0	1.8	0.5
	EEC	11.7	12.8	13.0	7.1	2.9
	United Kingdom	3.2	4.8	4.6	2.0	0.8
	Japan	4.5	5.2	7.6	4.1	0.8
	All other	4.6	5.4	3.2	2.4	1.1

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35414	Grinding and polishing machines	16.6	16.9	16.0	12.7	6.5
	Canada	0.5	0.3	0.2	0.6	0.4
	EEC	7.5	7.6	7.4	6.2	3.0
	United Kingdom	3.1	3.5	2.2	1.6	0.8
	Japan	1.6	1.9	2.0	1.0	0.2
	All other	3.9	3.6	4.2	3.3	2.1
35418	Other machine tools, (metal-cutting)	22.4	23.1	26.1	17.1	9.7
	Canada	0.7	0.9	0.6	0.3	0.8
	EEC	11.1	9.7	11.4	7.9	5.0
	United Kingdom	4.2	5.2	6.8	2.8	1.2
	Japan	1.0	1.3	1.3	1.1	0.2
	All other	5.4	6.0	6.0	5.0	2.5
35419	Parts for metal-cutting machine tools, and rebuilt machine tools	21.2	24.4	21.3	16.5	10.8
	Canada	2.7	3.1	1.8	1.6	1.1
	EEC	9.0	12.4	9.8	6.7	4.6
	United Kingdom	3.2	3.5	4.2	3.8	2.1
	Japan	1.9	1.4	1.5	1.2	0.6
	All other	4.4	4.0	4.0	3.2	2.4
35421 35422 35423 35425	Metalworking machinery, n.e.c.	23.3	21.6	24.7	13.1	8.2
	Canada	1.6	1.4	1.7	1.1	0.8
	EEC	12.7	11.3	14.0	6.1	5.0
	United Kingdom	2.1	3.4	4.1	1.7	1.0
	Japan	0.9	0.9	2.2	1.3	0.4
	All other	6.0	4.6	2.7	2.9	1.0
35424	Parts for metalworking machinery, n.e.c.	5.9	3.6	4.2	3.1	1.8
	Canada	1.5	1.6	2.2	1.2	0.8
	EEC	1.8	1.4	1.0	1.3	0.6
	United Kingdom	1.9	0.3	0.6	0.3	0.2
	Japan	0.2	(1)	0.2	0.2	(1)
	All other	0.5	0.3	0.2	0.1	0.2

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35441 35453	Special dies, jigs, fixtures and metalworking attachments....	16.1	10.0	9.4	7.1	7.0
	Canada..................	4.0	3.5	2.4	2.0	3.2
	EEC.....................	7.0	2.7	3.2	2.2	1.4
	United Kingdom..........	0.8	0.7	0.6	0.5	0.4
	Japan....................	0.5	0.6	0.6	0.5	0.2
	All other................	3.8	2.5	2.6	1.9	1.8
35442	Metal foundry molding boxes and molds..................	26.2	23.9	18.2	14.5	11.6
	Canada..................	17.4	17.7	12.8	10.5	8.5
	EEC.....................	4.6	2.9	2.7	2.1	1.6
	United Kingdom..........	0.7	0.6	0.4	0.2	0.3
	Japan....................	0.5	0.3	0.3	0.2	0.1
	All other................	3.0	2.4	2.0	1.5	1.1
35451	Small cutting tools for metal-working machinery..........	14.9	13.4	12.9	10.5	7.0
	Canada..................	1.2	0.7	0.7	0.5	0.2
	EEC.....................	3.6	3.2	2.4	2.0	1.8
	United Kingdom..........	2.7	2.4	2.4	1.9	1.3
	Japan....................	2.0	2.2	2.1	1.4	0.7
	All other................	5.4	4.9	5.3	4.7	3.0
35452	Precision measuring tools.......	3.8	3.7	4.6	3.6	2.2
	Canada..................	0.2	0.2	0.3	(1)	(1)
	EEC.....................	1.2	1.2	1.5	1.3	0.9
	United Kingdom..........	0.2	0.1	0.3	0.1	0.1
	Japan....................	1.6	1.7	1.7	1.5	0.8
	All other................	0.6	0.5	0.8	0.7	0.4
35481	Rollingmill machinery.........	10.5	21.7	10.5	2.6	3.1
	Canada..................	0.6	0.3	0.5	0.1	0.1
	EEC.....................	6.5	16.5	7.1	1.5	2.3
	United Kingdom..........	0.6	0.4	0.2	0.4	0.2
	Japan....................	0.4	0.4	0.2	0.5	0.3
	All other................	2.4	4.1	2.5	0.1	0.2

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35482	Power-driven hand tools	9.9	7.9	6.0	5.3	2.9
	Canada	3.1	2.5	0.2	0.1	0.1
	EEC	1.9	1.2	1.4	1.1	0.7
	United Kingdom	0.7	0.3	0.8	0.7	0.3
	Japan	3.3	2.7	2.4	2.2	1.0
	All other	0.9	1.2	1.2	1.2	0.8
35483	Acetylene welding and cutting apparatus	3.6	1.8	2.6	2.1	1.3
	Canada	0.1	0.3	0.1	0.1	0.1
	EEC	2.5	1.2	1.7	1.0	0.6
	United Kingdom	0.4	0.2	0.6	0.9	0.5
	Japan	(1)	(1)	0.1	(1)	(1)
	All other	0.6	0.1	0.1	0.1	0.1
35512	Commercial food products machinery	3.8	3.4	3.1	2.9	2.7
	Canada	0.1	0.1	(1)	0.1	(1)
	EEC	2.6	2.2	2.0	1.9	1.9
	United Kingdom	0.2	0.2	0.1	0.1	0.1
	Japan	0.3	0.2	0.1	0.1	0.1
	All other	0.6	0.7	0.9	0.7	0.6
35511 35513	Dairy product plant machinery and other industrial food products machinery and parts	55.7	48.7	49.3	45.3	40.8
	Canada	6.8	6.0	8.1	7.2	5.0
	EEC	31.8	27.8	23.8	25.5	23.4
	United Kingdom	7.1	5.3	5.9	4.8	5.3
	Japan	2.4	2.2	4.0	1.1	0.5
	All other	7.6	7.4	7.5	6.7	6.6
35521	Textile machinery	128.2	121.5	88.7	84.2	54.9
	Canada	1.3	0.6	0.5	0.4	0.2
	EEC	74.8	67.7	48.9	44.5	28.4
	United Kingdom	13.8	12.9	9.4	14.5	10.4
	Japan	5.7	4.1	3.2	2.7	1.4
	All other	32.6	36.2	26.7	22.1	14.5

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35522	Parts and attachments for textile machinery	38.5	38.4	35.0	37.3	19.9
	Canada	0.5	0.3	0.1	0.6	0.1
	EEC	21.0	23.7	18.9	20.1	10.4
	United Kingdom	5.5	4.5	5.1	1.8	4.9
	Japan	2.8	1.5	1.1	0.5	0.6
	All other	8.7	8.4	9.8	14.3	3.9
35530	Woodworking machinery and parts	21.0	12.6	8.0	10.0	6.8
	Canada	7.8	2.6	1.8	0.9	0.7
	EEC	9.6	6.8	4.0	6.7	4.3
	United Kingdom	0.7	0.8	0.6	0.7	0.5
	Japan	1.3	0.8	0.2	0.2	0.1
	All other	1.6	1.6	1.4	1.5	1.2
35540	Paper industries machinery and parts	47.4	34.6	41.8	29.0	23.5
	Canada	9.8	6.3	9.9	6.2	4.6
	EEC	14.6	12.5	11.7	9.3	10.6
	United Kingdom	2.9	2.9	1.6	1.7	1.1
	Japan	1.2	3.2	1.6	0.7	0.2
	All other	18.9	9.7	17.0	11.1	7.0
35551	Printing presses	37.0	35.1	28.1	22.8	21.8
	Canada	1.8	1.7	1.8	1.5	1.1
	EEC	28.6	25.2	20.8	15.5	16.3
	United Kingdom	2.4	3.7	1.6	2.7	1.7
	Japan	0.5	0.3	0.4	0.1	0.1
	All other	3.7	4.2	3.5	3.0	2.6
35552	Other printing trades machinery and parts	28.8	[illegible]	22.6	13.4	9.8
	Canada	1.1	1.1	1.3	0.6	0.8
	EEC	15.0	13.5	11.4	7.8	5.3
	United Kingdom	6.9	5.9	3.9	2.7	1.7
	Japan	1.1	0.9	0.6	0.3	0.2
	All other	4.7	9.5	5.4	2.0	1.8

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35592 33211	Foundry machinery and equipment	12.9	15.7	6.6	8.1	3.5
	Canada	3.7	1.1	1.6	1.2	0.8
	EEC	5.5	12.6	2.4	4.6	1.1
	United Kingdom	1.0	0.6	0.5	0.6	0.2
	Japan	1.3	0.4	0.4	0.3	0.1
	All other	1.4	1.0	1.7	1.4	1.3
35614	Air and gas compressors except refrigeration	11.7	10.0	10.9	8.3	6.9
	Canada	3.0	2.2	1.4	1.4	1.9
	EEC	4.7	4.4	5.3	3.8	2.0
	United Kingdom	2.0	1.4	1.6	1.5	1.5
	Japan	0.3	0.1	(1)	(1)	(1)
	All other	1.7	1.9	2.6	1.6	1.5
35615	Pumps and compressors, n.e.c.	24.4	20.1	15.3	18.7	10.8
	Canada	5.5	4.8	3.6	4.3	2.2
	EEC	6.4	5.2	4.3	6.8	2.7
	United Kingdom	4.7	4.4	4.3	5.2	3.7
	Japan	4.8	3.2	1.7	1.1	1.0
	All other	3.0	2.5	1.4	1.3	1.2
35616	Parts and attachments for air and gas compressors	16.5	13.7	10.9	8.3	9.8
	Canada	7.5	5.7	2.6	2.5	3.7
	EEC	2.8	2.8	2.7	1.4	1.1
	United Kingdom	3.1	3.0	3.9	2.9	3.1
	Japan	0.6	0.4	0.3	0.4	0.9
	All other	2.5	1.8	1.4	1.1	1.0
35621 35622 35624	Ball and roller bearings, not mounted	68.9	61.2	57.8	51.6	33.4
	Canada	10.0	7.2	6.7	5.7	3.6
	EEC	7.4	8.2	9.7	9.0	7.0
	United Kingdom	5.0	4.5	8.3	7.9	3.4
	Japan	43.3	36.4	28.6	25.7	17.0
	All other	3.2	4.9	4.5	3.3	2.4

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35641 36341	Blowers and fans	10.1	5.2	3.2	2.5	1.7
	Canada	5.5	3.0	1.9	1.2	0.7
	EEC	1.8	1.0	0.7	0.7	0.5
	United Kingdom	0.3	0.1	0.1	0.1	0.1
	Japan	2.0	0.8	0.4	0.3	0.3
	All other	0.5	0.3	0.1	0.2	0.1
35661 35663 35623	Bearings and other mechanical power transmission equipment	15.6	13.8	10.1	10.0	9.6
	Canada	1.6	1.2	0.9	1.0	2.0
	EEC	3.7	3.6	3.0	2.7	2.5
	United Kingdom	1.9	1.8	1.5	1.5	1.1
	Japan	6.9	6.1	3.9	4.1	3.3
	All other	1.5	1.1	0.8	0.7	0.7
35662	Speed changers, industrial high speed drives and gears	7.6	5.2	3.6	3.1	1.7
	Canada	0.7	0.3	0.3	0.2	0.3
	EEC	2.4	2.0	1.2	0.7	0.4
	United Kingdom	2.2	1.0	1.3	1.4	0.8
	Japan	0.7	0.4	0.5	0.1	(1)
	All other	1.6	1.5	0.3	0.7	0.2
35670	Industrial furnaces, ovens, and parts	9.5	7.3	7.3	7.2	5.1
	Canada	1.1	1.2	1.3	0.5	0.5
	EEC	5.2	3.0	3.1	3.2	2.1
	United Kingdom	0.9	1.1	1.0	0.5	0.7
	Japan	0.1	0.1	0.1	0.4	0.1
	All other	2.2	1.9	1.8	2.6	1.7
35690	General industrial machinery, n.e.c.	169.6	143.8	142.9	111.2	82.5
	Canada	28.6	19.6	16.7	16.4	12.5
	EEC	83.5	72.6	63.9	57.3	41.9
	United Kingdom	23.0	24.0	22.9	19.5	16.6
	Japan	13.8	10.6	25.9	5.0	2.0
	All other	20.7	17.0	13.5	13.0	9.5

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35720	Typewriters and parts	71.6	67.0	61.6	59.3	47.5
	Canada	3.0	2.7	1.4	0.6	0.2
	EEC	32.5	33.8	36.3	38.0	31.9
	United Kingdom	11.7	6.3	5.4	4.7	3.0
	Japan	15.8	12.8	9.6	9.3	6.0
	All other	8.6	11.4	8.9	6.7	6.4
35760	Scales and balances, except laboratory	2.4	1.7	2.2	2.4	2.1
	Canada	0.2	0.2	0.1	0.1	0.1
	EEC	1.3	1.0	0.9	1.2	0.9
	United Kingdom	0.2	0.1	0.1	0.2	0.1
	Japan	0.2	0.1	0.1	(1)	(1)
	All other	0.5	0.3	1.0	0.9	1.0
35790	Office machines, n.e.c.	378.6	271.7	162.3	129.4	95.1
	Canada	44.7	19.2	19.2	13.9	10.1
	EEC	109.0	95.4	79.4	69.0	50.6
	United Kingdom	22.5	19.2	18.4	16.8	12.3
	Japan	133.4	98.5	14.8	7.5	4.6
	All other	69.0	39.4	30.5	22.2	17.5
35810	Automatic merchandising machines	2.8	2.4	2.2	1.9	1.4
	Canada	0.4	0.5	0.2	0.2	0.2
	EEC	0.2	0.2	0.4	0.1	(1)
	United Kingdom	0.2	0.1	0.1	0.2	0.2
	Japan	0.8	0.8	0.6	0.5	0.3
	All other	1.2	0.8	0.9	0.9	0.7
35820 36332	Laundry equipment and parts, except household washing machines and dryers	7.4	7.6	4.7	3.2	3.3
	Canada	0.1	0.1	(1)	(1)	(1)
	EEC	3.0	3.5	1.6	1.4	1.3
	United Kingdom	2.0	1.7	0.6	0.7	0.8
	Japan	(1)	0.1	(1)	(1)	(1)
	All other	2.3	2.2	2.5	1.1	1.2

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
35851 35853 35855 35857	Heat transfer equipment and refrigeration equipment.....	17.5	10.6	5.4	5.1	5.0
	Canada..................	14.7	8.0	4.6	4.0	3.9
	EEC.....................	0.7	1.0	0.2	0.3	0.1
	United Kingdom..........	0.6	0.6	0.1	0.1	0.1
	Japan....................	0.7	0.4	0.1	0.1	0.2
	All other................	0.8	0.6	0.4	0.6	0.7
35854	Compressors and compressor units, all refrigerants.........	6.1	3.6	2.3	2.5	1.4
	Canada..................	(1)	(1)	(1)	0.3	(1)
	EEC.....................	3.9	2.2	0.4	0.1	(1)
	United Kingdom..........	0.4	0.3	0.1	0.2	(1)
	Japan....................	0.6	0.1	(1)	0.1	(1)
	All other................	1.2	1.0	1.8	1.8	1.4
36110	Electrical measuring instruments.	62.6	53.7	43.2	41.8	23.0
	Canada..................	6.7	6.1	6.7	6.0	2.4
	EEC.....................	16.2	12.3	10.0	9.1	6.0
	United Kingdom..........	11.6	11.8	10.1	10.2	4.2
	Japan....................	15.5	13.3	8.6	8.1	4.2
	All other................	12.6	10.2	7.8	8.4	6.2
36120 36794	Power, distribution, and specialty transformers, including electronic............	42.0	39.8	27.0	24.4	10.5
	Canada..................	12.2	11.3	10.4	4.3	3.2
	EEC.....................	6.9	8.1	5.6	4.8	1.6
	United Kingdom..........	5.1	3.1	1.8	0.6	0.2
	Japan....................	8.4	7.2	5.6	7.0	4.4
	All other................	9.4	10.1	3.6	7.7	1.1
36211	Fractional horsepower motors and generators..............	23.5	20.0	17.4	17.5	15.5
	Canada..................	0.9	0.5	0.5	0.2	0.2
	EEC.....................	2.6	2.3	2.0	1.4	1.0
	United Kingdom..........	3.8	5.2	5.6	3.6	2.3
	Japan....................	14.8	10.7	8.0	11.1	10.4
	All other................	1.4	1.3	1.3	1.2	1.6

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36212 36213	Integral horsepower motors and generators	15.5	15.3	14.4	9.3	5.9
	Canada	3.9	2.8	2.2	1.2	0.6
	EEC	2.9	2.4	1.4	0.7	0.5
	United Kingdom	5.8	4.9	6.3	4.6	4.2
	Japan	2.8	3.3	1.6	1.9	0.5
	All other	0.1	1.9	2.9	0.9	0.1
36215	Motor-generating sets and other rotating equipment	0.8	1.0	0.6	0.2	0.2
	Canada	0.1	0.7	0.1	(1)	(1)
	EEC	0.1	0.1	0.2	(1)	(1)
	United Kingdom	0.4	0.1	0.1	0.1	0.1
	Japan	0.1	0.1	(1)	(1)	(1)
	All other	0.1	0.0	0.2	0.1	0.1
36216	Parts and supplies, except for land transportation equipment	32.3	23.3	17.7	9.5	5.8
	Canada	9.2	6.5	7.4	2.8	1.1
	EEC	3.0	2.8	2.5	1.4	0.9
	United Kingdom	1.6	2.1	1.3	0.8	0.8
	Japan	5.0	3.2	2.4	2.0	1.6
	All other	13.5	8.7	4.1	2.5	1.4
36232	Arc welding electrodes, metal	0.9	0.8	1.0	1.0	0.5
	Canada	0.3	0.1	0.1	0.1	(1)
	EEC	0.2	0.3	0.2	0.2	0.1
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	0.1	0.1	0.3	0.1	(1)
	All other	0.3	0.3	0.4	0.6	0.4
36231 36233	Other welding machines, components, & accessories, n.e.c.	3.4	4.1	3.3	2.2	0.9
	Canada	0.8	0.6	0.3	0.3	(1)
	EEC	0.9	0.9	1.0	0.5	0.2
	United Kingdom	0.3	0.6	0.5	0.3	0.1
	Japan	(1)	0.1	0.1	(1)	(1)
	All other	1.4	1.9	1.4	1.1	0.6

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36240	Carbon and graphite products..	22.3	20.2	22.2	14.4	9.4
	Canada..................	1.1	0.7	0.8	0.7	0.3
	EEC.....................	11.1	11.2	15.0	7.7	4.4
	United Kingdom..........	1.4	0.8	0.9	0.8	0.6
	Japan...................	8.7	7.4	5.3	4.7	3.9
	All other................	0.0	0.1	0.2	0.5	0.2
36310 36340 36390	Household equipment and appliances, n.e.c............	93.9	54.8	39.4	32.0	22.0
	Canada..................	7.5	3.2	1.6	1.9	1.4
	EEC.....................	24.5	18.5	17.8	15.8	9.1
	United Kingdom..........	4.6	2.8	3.6	3.6	2.5
	Japan...................	23.6	12.9	7.4	5.3	4.4
	All other................	33.7	17.4	9.0	5.4	4.6
3632	Household refrigerators, home and farm freezers...........	48.3	34.1	20.3	17.9	13.3
	Canada..................	1.3	2.0	0.4	3.2	1.6
	EEC.....................	23.7	15.7	12.6	8.3	5.9
	United Kingdom..........	4.1	3.8	1.4	1.2	1.1
	Japan...................	2.6	2.1	1.6	2.0	1.9
	All other................	16.6	10.5	4.3	3.2	2.8
36332	Household laundry equipment (washing machines only)......	0.6	0.2	0.3	0.4	0.6
	Canada..................	(1)	(1)	0.2	0.3	0.3
	EEC.....................	(1)	(1)	(1)	(1)	(1)
	United Kingdom..........	(1)	(1)	(1)	(1)	(1)
	Japan...................	0.5	0.1	(1)	(1)	(1)
	All other................	0.1	0.1	0.1	0.1	0.3
35893 36350	Vacuum cleaners and parts.....	3.7	4.1	3.2	2.0	1.9
	Canada..................	0.9	1.0	0.4	0.2	(1)
	EEC.....................	0.1	0.2	0.1	0.1	0.1
	United Kingdom..........	0.9	0.8	1.0	1.1	1.4
	Japan...................	1.5	1.7	1.6	0.6	0.4
	All other................	0.3	0.4	0.1	0.0	0.0

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36360	Sewing machines and parts	109.2	95.2	76.3	75.5	67.2
	Canada	4.2	2.9	0.2	0.2	0.8
	EEC	24.7	18.7	20.1	15.6	11.4
	United Kingdom	15.6	11.6	11.0	15.5	14.5
	Japan	58.2	56.2	41.7	41.1	37.8
	All other	6.5	5.8	3.3	3.1	2.7
36410	Electric lamps (bulbs only)	25.6	23.8	22.6	23.4	14.6
	Canada	2.1	2.1	0.7	1.0	0.7
	EEC	6.4	6.2	3.7	3.4	2.7
	United Kingdom	0.4	0.7	0.2	0.2	0.2
	Japan	14.2	12.9	14.8	16.7	10.0
	All other	2.5	1.9	3.2	2.1	1.0
36421 36422 36423	Electric lighting fixtures, except portable	12.6	9.4	6.7	8.3	6.4
	Canada	0.8	0.5	0.3	0.4	0.3
	EEC	4.4	3.2	2.2	2.9	2.1
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	0.7	0.4	0.2	0.2	0.1
	All other	6.7	5.3	4.0	4.8	3.9
36424 36425 36426	Electric lighting except fixtures and outdoor equipment including hand portable equipment	6.5	28.0	18.7	16.6	13.3
	Canada	(1)	6.6	2.9	1.4	0.7
	EEC	1.6	7.6	4.9	4.1	3.1
	United Kingdom	0.3	1.6	1.2	2.4	0.8
	Japan	1.7	4.5	3.7	3.4	3.3
	All other	2.9	7.7	6.0	5.3	5.4
36427	Portable residential electric fixtures	5.2	4.7	5.3	8.0	5.6
	Canada	(1)	(1)	(1)	(1)	(1)
	EEC	0.6	0.5	0.6	0.3	0.3
	United Kingdom	(1)	(1)	(1)	(1)	(1)
	Japan	3.6	3.4	3.7	7.1	4.8
	All other	1.0	0.8	1.0	0.6	0.5

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36430 36130 36220 36793	Electric current circuit making and breaking devices, n.e.c....	70.2	60.2	51.0	34.9	27.1
	Canada..................	16.0	11.1	8.0	7.6	5.7
	EEC.....................	20.6	18.9	16.5	9.4	7.1
	United Kingdom..........	5.9	4.9	3.9	3.6	3.1
	Japan...................	15.2	14.1	12.2	8.0	7.6
	All other................	12.5	11.2	10.4	6.3	3.6
36442	Electric conduit and conduit fittings.....................	2.3	2.3	1.3	0.7	0.4
	Canada..................	0.2	0.1	(1)	(1)	(1)
	EEC.....................	0.5	0.2	0.1	0.1	(1)
	United Kingdom..........	(1)	(1)	(1)	(1)	(1)
	Japan...................	1.6	1.9	1.2	0.5	0.3
	All other................	—	0.1	—	0.1	0.1
36511	Household and automobile radios and radio-phonograph combinations..............	115.0	88.8	60.7	45.8	32.2
	Canada..................	26.7	29.6	18.4	8.1	5.0
	EEC.....................	6.8	7.7	8.4	6.4	8.1
	United Kingdom..........	0.3	0.2	0.2	0.2	0.1
	Japan...................	—	—	—	—	—
	All other................	81.2	51.3	33.7	31.1	19.0
36512	Household television receivers..	45.3	18.0	7.6	9.7	0.2
	Canada..................	4.7	1.8	5.6	9.5	0.2
	EEC.....................	0.1	0.2	0.1	0.1	(1)
	United Kingdom..........	(1)	0.1	(1)	(1)	(1)
	Japan...................	—	—	—	—	—
	All other................	40.5	15.9	1.9	0.1	—
36514 36515	Other audio equipment and accessories..................	62.1	50.1	50.3	53.5	37.7
	Canada..................	2.4	1.4	0.7	0.7	0.3
	EEC.....................	10.6	10.9	19.5	17.3	7.9
	United Kingdom..........	36.8	31.5	24.3	30.8	26.5
	Japan...................	—	—	—	—	—
	All other................	12.3	6.3	5.8	4.7	3.0

[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36621 36622 36623 36627	Electronic communications systems and electronic alarm and signal systems	126.8	118.9	110.1	91.1	45.6
	Canada	12.6	14.9	16.0	8.1	3.7
	EEC	6.4	7.4	6.5	5.1	2.6
	United Kingdom	4.5	3.8	8.4	4.7	2.1
	Japan	55.4	52.0	47.6	50.7	26.0
	All other	47.9	40.8	31.6	22.5	11.2
36624 36625 36628	Electronic navigational aids and detection equipment	64.1	40.9	25.9	26.0	24.8
	Canada	54.7	33.2	19.4	21.1	21.8
	EEC	1.2	0.9	0.6	0.4	0.3
	United Kingdom	5.3	4.8	4.8	4.0	2.1
	Japan	2.5	1.9	1.0	0.4	0.6
	All other	0.4	0.1	0.1	0.1	—
36792 36291	Capacitors, including industrial	32.2	26.9	23.6	24.5	15.5
	Canada	0.7	0.4	0.5	0.2	0.1
	EEC	6.8	5.6	4.5	5.0	3.9
	United Kingdom	0.4	0.3	0.4	0.5	0.2
	Japan	14.9	14.7	15.6	16.9	10.3
	All other	9.4	5.9	2.6	1.9	1.0
36795	Other electronic components	63.6	38.4	22.2	38.5	25.6
	Canada	5.2	3.8	3.5	5.2	3.2
	EEC	13.0	9.0	5.9	7.1	5.0
	United Kingdom	4.3	3.2	3.3	3.3	2.5
	Japan	17.4	10.0	6.2	16.0	10.6
	All other	23.7	12.4	3.3	6.9	4.3
36610	Telephone and telegraph apparatus	33.9	43.1	30.6	32.5	17.0
	Canada	16.9	25.3	10.6	7.1	6.0
	EEC	7.8	10.6	12.1	12.2	6.1
	United Kingdom	1.1	1.1	1.2	1.2	1.0
	Japan	3.9	3.0	1.7	1.5	1.6
	All other	4 2	3.1	5.0	10.5	2.3

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
36930	X-ray and therapeutic apparatus	29.0	23.8	19.5	18.4	14.6
	Canada	3.5	2.9	2.3	1.4	1.1
	EEC	18.8	16.9	12.7	12.6	10.0
	United Kingdom	1.0	0.5	0.5	0.8	0.3
	Japan	2.5	1.0	0.9	1.4	1.3
	All other	3.2	2.5	3.1	2.2	1.9
36942	Battery charging generators	2.1	2.1	1.5	1.3	0.8
	Canada	(1)	(1)	(1)	(1)	(1)
	EEC	1.3	1.2	0.8	0.5	0.3
	United Kingdom	0.7	0.8	0.7	0.7	0.5
	Japan	0.1	0.1	(1)	0.1	(1)
	All other	0.0	0.0	0.0	0.0	0.0
36943	Cranking motors	4.1	3.5	1.7	1.4	0.9
	Canada	(1)	(1)	(1)	(1)	(1)
	EEC	1.7	1.8	0.7	0.5	0.3
	United Kingdom	0.8	0.8	0.7	0.8	0.5
	Japan	1.4	0.8	0.2	0.1	0.1
	All other	0.2	0.1	0.1	0.0	0.0
36944	Spark plugs	6.3	5.4	4.8	3.6	2.9
	Canada	(1)	(1)	(1)	(1)	(1)
	EEC	3.3	3.1	2.6	2.0	1.6
	United Kingdom	0.9	0.9	1.1	0.7	0.7
	Japan	1.9	1.2	1.1	0.8	0.5
	All other	0.2	0.2	0.0	0.1	0.1
36945 36946	Other engine electrical equipment and parts	34.1	29.8	16.0	13.3	4.7
	Canada	24.6	22.9	10.9	9.4	1.3
	EEC	4.4	3.8	2.7	2.0	2.1
	United Kingdom	0.8	1.1	1.1	0.9	0.8
	Japan	4.0	1.8	1.2	0.8	0.4
	All other	0.3	0.2	0.1	0.2	0.1

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
37111	Passenger cars, new	1,451.7	1,374.8	828.1	721.1	526.3
	Canada	—	—	—	—	—
	EEC	987.9	1,000.1	598.9	604.2	414.8
	United Kingdom	104.2	104.1	89.0	9.0	45.4
	Japan	282.2	179.0	67.0	53.9	25.3
	All other	77.4	91.6	73.2	54.0	40.8
37110 37140	All other motor vehicles and parts, including aircraft and missile engines and parts	351.8	270.9	200.1	271.7	167.9
	Canada	22.4	23.6	9.0	3.3	9.8
	EEC	129.1	116.7	96.1	101.6	59.0
	United Kingdom	110.2	70.2	56.7	144.4	74.8
	Japan	71.2	49.9	30.3	16.6	11.4
	All other	18.9	10.5	8.0	5.8	12.9
37310 37320	Ships and boats-nonmilitary, new	37.1	24.8	18.6	16.4	12.7
	Canada	11.6	6.9	4.4	3.2	2.6
	EEC	3.4	3.5	3.4	3.5	3.0
	United Kingdom	5.7	2.8	2.3	1.3	1.2
	Japan	2.5	1.6	1.6	1.2	1.2
	All other	13.9	10.0	6.9	7.2	4.7
37510	Motorcycles, bicycles and parts	230.8	167.0	144.8	211.2	172.3
	Canada	0.2	0.3	0.1	(1)	(1)
	EEC	28.9	28.7	30.9	31.0	25.3
	United Kingdom	36.7	40.4	36.6	40.2	28.0
	Japan	146.8	84.3	67.0	127.0	108.4
	All other	18.2	13.3	10.2	13.0	10.6
38111	Aircraft flight instruments and related equipment	13.5	10.8	6.5	5.0	8.2
	Canada	8.5	6.5	1.7	2.0	6.2
	EEC	1.3	1.1	1.1	0.6	0.2
	United Kingdom	1.6	1.4	2.0	1.3	1.1
	Japan	1.5	1.2	1.2	0.5	0.3
	All other	0.6	0.6	0.5	0.6	0.4

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[1] Less than \$0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
38112	Laboratory and scientific instruments	13.2	13.0	11.3	3.5	3.7
	Canada	2.6	3.2	4.0	0.1	0.2
	EEC	4.8	3.7	2.5	1.0	1.5
	United Kingdom	2.0	1.2	1.7	0.9	1.2
	Japan	1.7	2.5	1.7	1.0	0.5
	All other	2.1	2.4	1.4	0.5	0.3
38113	Surveying and drafting instruments and laboratory furniture	18.9	18.5	17.6	16.8	14.5
	Canada	1.1	0.7	0.4	0.2	0.2
	EEC	8.2	7.8	7.4	7.6	7.1
	United Kingdom	1.9	2.0	1.7	1.9	1.2
	Japan	3.9	3.5	2.9	2.5	1.7
	All other	3.8	4.5	5.2	4.6	4.3
38212	Integrating meters, nonelectric type	1.6	0.9	0.8	0.7	0.2
	Canada	0.2	0.1	(1)	(1)	(1)
	EEC	0.2	0.1	0.2	0.2	0.1
	United Kingdom	0.6	0.5	0.3	0.2	(1)
	Japan	0.6	0.2	0.2	0.2	(1)
	All other	0.0	0.0	0.1	0.1	0.1
38211 38213 38214 38220	Mechanical measuring and industrial process instruments, n.e.c.	27.5	22.2	16.1	13.8	10.7
	Canada	2.8	2.6	1.3	1.2	1.5
	EEC	11.2	8.9	6.2	5.3	4.1
	United Kingdom	3.2	2.8	2.7	2.5	1.6
	Japan	5.3	3.6	2.6	2.0	1.3
	All other	5.0	4.3	3.3	2.8	2.2
38311 19410	Optical instruments and lenses	88.3	77.8	65.7	62.0	48.5
	Canada	1.3	0.6	0.5	0.9	0.5
	EEC	18.5	16.9	16.2	15.3	12.4
	United Kingdom	3.3	2.8	2.7	2.4	2.1
	Japan	58.2	51.8	40.6	39.1	30.4
	All other	7.0	5.7	5.7	4.3	3.1

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[1] Less than $0.05 million (included in all other).

Table 13. Imports of MSS Product Classes (cont'd)

(In Millions of Dollars)

SIC	Product description	1969	1968	1967	1966	1965
38410	Surgical and medical instruments and apparatus	13.9	10.1	8.4	7.5	5.5
	Canada	0.5	0.3	0.1	0.1	0.1
	EEC	8.5	6.5	5.5	4.8	3.4
	United Kingdom	1.9	1.2	1.0	1.0	0.9
	Japan	1.3	1.0	1.0	0.8	0.6
	All other	1.7	1.1	0.8	0.8	0.5

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This publication, one of a series prepared pursuant to the U.S. Metric Study Act, evaluates the potential effects that a U.S. conversion to the metric system may have on the Nation's foreign trade. The report is based on a survey of exporters and importers trading in measurement-sensitive products, which was conducted by the Bureau of Domestic Commerce of the Department of Commerce.

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